

***Can they be friends? Variability and stability of
friendship choices among German and Turkish
preadolescents entering ethnically heterogeneous
schools***

Dissertation

zur Erlangung des akademischen Grades

doctor philosophiae (Dr. phil.)

vorgelegt dem Rat der Fakultät für Sozial- und Verhaltenswissenschaften

der Friedrich-Schiller-Universität Jena

von Dipl.-Psych. Philipp Jugert, MA

geboren am 21.10.1978 in Bremen

Gutachter:

1. Prof. Dr. Peter Noack
2. Prof. Dr. Adam Rutland

Datum der Verteidigung: 16.12.2009

For Lisa and Esra

ACKNOWLEDGEMENTS

I owe gratitude to a great number of people who have supported me and my work on this thesis over the past three years. First, I have to thank my supervisors, Peter Noack and Adam Rutland for their trust and confidence in my work. Without your challenging and rewarding comments this project would not have succeeded. There are a number of other people who helped me develop my ideas for this thesis. In particular, I want to thank Allard Feddes for inspiring me to get into the topic of children's cross-group friendships. I am also indebted to Melanie Killen and Lindsey Cameron for their insightful comments and for sharing their ideas and research instruments with me. Special thanks go to John Duckitt and Christopher Cohrs who provided me with a sound basis for conducting research and writing scholarly papers. Many thanks also go to all members of the IGC. Being part of this institution proved to be a very inspiring and rewarding experience.

I want to thank the children, parents, teachers, and principals of the participating schools. Without your support this work would not have been possible. I also want to thank my father Gert Jugert for setting up the contacts that were needed to find schools willing to participate in this research. Julian Blanck I want to thank for help with the sometimes challenging but always lively task of collecting data in the schools.

Martin Schaffer and Jens Schumacher I owe gratitude to for their support with programming. Fritz Funke and Ilka Gleibs I have to thank for statistical advice. I also want to thank the student assistants who lend their helpful hands over the years: Kristin Schenk, Sabine Kutschan, and Maxi Nieber. I am also grateful to Allyson Benbow, Nicole Harth, Friederike Feuchte, Beatrice Fleischmann, and Sarah Martiny for proofreading parts of this thesis.

Last but not least, I want to thank my family, Lisa and Esra, who were a source of inspiration, love, and fun. I also owe much to my parents, Agnes Biró and Gert Jugert, who always supported me through this scientific endeavour.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS.....	I
LIST OF FIGURES	IV
LIST OF TABLES	V
INTRODUCTION.....	1
THEORETICAL BACKGROUND	7
CHILDREN’S CROSS-ETHNIC FRIENDSHIPS	7
<i>Benefits of Cross-Ethnic Friendships.....</i>	7
<i>Frequency of Cross-Ethnic Friendships</i>	9
<i>Stability of Cross-Ethnic Friendships</i>	14
PREDICTORS OF VARIABILITY AND STABILITY OF PREADOLESCENTS’	
FRIENDSHIP CHOICES.....	15
<i>Outgroup Orientation.....</i>	15
<i>Children’s Intergroup Attitudes</i>	16
<i>Perceptions of Peer Norms</i>	25
<i>Perceptions of Contact Conditions</i>	30
<i>Shared Identity</i>	32
<i>Social Competence</i>	36
CONCLUSION	37
THE PRESENT STUDY	38
PURPOSE AND DESIGN	38
FIELD SITUATION	38
RESEARCH QUESTIONS AND HYPOTHESES.....	39
<i>Trajectories of Same-Ethnic Friendship Preference.....</i>	39
<i>Predictors of Cross-Ethnic Friendship Stability.....</i>	40
METHOD.....	41
PARTICIPANTS.....	41
PROCEDURE	42
MEASURES.....	42
<i>Friendship choices</i>	42
<i>Outgroup orientation.....</i>	43
<i>Peer norms supportive of cross-ethnic friendships</i>	43
<i>Intergroup attitudes.....</i>	44

<i>Perceptions of contact conditions</i>	<i>44</i>
<i>School class identification.....</i>	<i>44</i>
<i>Empathy.....</i>	<i>45</i>
ANALYSIS	45
<i>Trajectories of same-ethnic friendship preference.....</i>	<i>45</i>
<i>Predictors of Cross-Ethnic Friendship Stability.....</i>	<i>46</i>
RESULTS.....	48
TRAJECTORIES OF SAME-ETHNIC FRIENDSHIP PREFERENCE.....	48
<i>Preliminary analyses.....</i>	<i>48</i>
<i>Multilevel modelling.....</i>	<i>55</i>
PREDICTORS OF CROSS-ETHNIC FRIENDSHIP STABILITY	64
<i>Stability of cross-ethnic friendships</i>	<i>64</i>
<i>T1 predictors of stability and change in preadolescents' affiliation with cross-ethnic friends.....</i>	<i>65</i>
DISCUSSION	67
CHANGE IN PREFERENCE FOR SAME-ETHNIC FRIENDS AND ITS PREDICTORS	67
STABILITY OF CROSS-ETHNIC FRIENDSHIPS AND ITS PREDICTORS	70
INTEGRATION OF RESULTS	71
LIMITATIONS	74
METHODOLOGICAL IMPLICATIONS	74
PRACTICAL IMPLICATIONS	75
SUGGESTIONS FOR FUTURE RESEARCH	76
CONCLUSION	79
REFERENCES	81
APPENDIX	102
SUMMARY.....	107
ZUSAMMENFASSUNG	110
CURRICULUM VITAE.....	113
EHRENWÖRTLICHE ERKLÄRUNG	114

LIST OF FIGURES

<i>Figure 1.</i> Trajectories of preference for same-ethnic friendships among German and Turkish preadolescents over the course of one school year.	56
<i>Figure 2.</i> Effects of class identification and time on preference for same-ethnic friends for Turkish children. Class ID = Class identification; T1 = Time 1; T2 = Time 2; T3 = Time 3.	63

LIST OF TABLES

Table 1. <i>Mean (std error) number of same- and cross-ethnic mutual friends over time, adjusted for number of same-sex classmates available.</i>	50
Table 2. <i>Means, (Standard Deviations), and Changes over Time and Differences between Groups.</i>	52
Table 3. <i>Cross-Sectional Correlations Between Variables at Time 1, Time 2, and Time 3 for German (above diagonal) and Turkish children (below diagonal).</i>	54
Table 4. <i>Estimates of Fixed and Random Effects From a Series of Multilevel Models for Change in PSF for German Children (N = 106).</i>	57
Table 5. <i>Estimates of Fixed and Random Effects From a Series of Multilevel Models for Change in PSF for Turkish Children (N = 45).</i>	59
Table 6. <i>Mean proportion (SD) of children's stable, dropped, and added same- and cross-ethnic friends.</i>	64
Table 7. <i>Means (SD), and post-hoc observed mean comparison results for effects of cross-ethnic friendship stability on German and Turkish preadolescents' empathy and peer norms at T1.</i>	66

*Louis, I think this is the beginning
of a beautiful friendship.*

(Quoted from the motion picture
“Casablanca”, 1942)

Chapter 1

INTRODUCTION

Today, schools in Western Europe are experiencing unparalleled levels of ethnic diversity. One reason for this rise in diversity is that immigration has replaced natural population change as the driving force behind population growth in Europe (Eurostat, 2008). Consequently, children and preadolescents go to school and interact with individuals from a wide range of ethnic backgrounds in many parts of Germany (Bildungsberichterstattung, 2008). This greater ethnic diversity opens up opportunities for children to form friendships across ethnic lines. As meta-analytic evidence shows, cross-ethnic friendship are one of the most potent means to reduce prejudice against ethnic outgroups among adults (Pettigrew & Tropp, 2006) and children (Tropp & Prenovost, 2008). This is an important finding because prejudice poses a major problem in many European countries, fuelling discrimination and outgroup hatred (Zick, Pettigrew, & Wagner, 2008), and may lead to hate crimes and violent intergroup conflict (Fiske, 2002). Cross-ethnic friendships are also valuable because they are associated with high social competence (Eisenberg et al., 2009; Lease & Blake, 2005), and improved academic motivation and performance (Hallinan & Williams, 1990).

Yet, research shows that compared to same-ethnic friendships, cross-ethnic friendships are relatively seldom (Kao & Joyner, 2004), less stable than same-ethnic friendships (Schneider, Dixon, & Udvari, 2007) and decline with age (Aboud, Mendelson, & Purdy, 2003). It is therefore important to understand how cross-ethnic friendships form and how they can be promoted. The goal of this study was two-fold. First, by following a group of preadolescents throughout their first year in secondary school, this study examined the trajectories of friendship choices in this key transition period and explored interindividual differences in friendship choices. The second goal was to examine friendship stability and to identify individual predictors of cross-ethnic friendship stability. The focus was on friendship choices of German (majority status) and Turkish (minority status) children.

The vast majority of studies on cross-ethnic friendships have been conducted in North America where the focus is often on racial rather than ethnic groups¹. Thus, it is unclear whether these results are transferable to the European context where the history of intergroup relations is different from North America (Zick et al., 2008). In North America, intergroup relations are still dominated by the Black-White divide that is a remnant of slavery centuries ago. In Europe, however, intergroup relations are shaped by relatively recent immigration patterns. Thus, while African Americans in North America and immigrants in Europe are both groups low in social status facing discrimination and disadvantage there are at least two important differences. First, race is often distinguished by skin colour while immigrant status or ethnic group status cannot be readily recognized from a person's outer features. Second, immigrant status is often associated with unclear citizen status in Europe while this is usually not the case for race in North America.

This has implications for the study of cross-ethnic peer relations. While it may be relatively easy to distinguish between same- and cross-race peers for children and researchers in North America, the distinction between same- and cross-ethnic peers is more complicated in the European immigration context. This is because children who look like native children may in fact be immigrants or descendents of immigrants and vice versa. Also, citizenship status alone, as derived from school records, may not be informative about ethnic group membership as immigrant children may or may not have acquired citizenship in their country of residence. Thus, it is crucial to ask respondents for their own self-defined ethnic group membership rather than basing this distinction on some seemingly valid outward criterion.

While ethnically diverse schools create opportunities for cross-ethnic friendships to develop these schools may also face problems in integrating a diverse student body. What if

¹ The term ethnic group denotes "a human community that has a collective name, a myth of common ancestry, shared historical memories, common traditions, customs, and practices (which may include a common religion or language), and a symbolic link to an ancestral homeland" (Barrett & Davis, 2008, p. 73). Barrett and Davis go on to describe that race:

[...] denotes a pseudobiological, socially constructed category, as there is no more genetic variability between putative races than there is within them [...] and definitions of races vary substantially across different historical periods and cultures [...]. However, race and associated terms such as *racial*, *Black*, and *White* are made very real for individuals through racism and racist practices [...]. For this reason, we use the term *race* [...] as a synonym for *racialized group* [...], without intending to imply that races are natural kinds or biologically grounded categories. (italics in original, p. 73)

For simplicity's sake, I will only use the more inclusive category ethnic when reviewing the literature on cross-ethnic and cross-race friendships although racial and ethnic groups can be distinguished according to the definitions cited above.

children do not cross ethnic boundaries to become friends but instead decide to self-segregate within their own ethnic circles (Tatum, 1997)? There is some evidence that children increasingly self-segregate and form friendships along ethnic lines when they move from primary to secondary school (Hill, Graham, Caulfield, Ross, & Shelton, 2007; Weller, 2007). Moreover, research shows that children show a preference for same- over cross-ethnic friends (e.g., Aboud et al., 2003; J. A. Graham & Cohen, 1997) and this preference intensifies with age, contributing to the further decline of cross-ethnic friendships when children move from middle childhood into adolescence (McGlothlin, Edmonds, & Killen, 2008). This study therefore focused on children's cross-ethnic friendships in this critical period when children enter secondary school.

Considering the benefits associated with cross-ethnic friendships, their often reported decline with age is concerning. Cross-ethnic friendships do not only reduce prejudice (Pettigrew & Tropp, 2006). Their effects are also long-lasting as having cross-ethnic friendships in childhood is associated with more positive intergroup attitudes in adulthood (Ellison & Powers, 1994; Jackman & Crane, 1986). In addition, integrated social networks may be particularly important for the academic success and future employment opportunities of minority children (Hallinan & Williams, 1990). In contrast, feeling left out of friendship networks because of their ethnic background may have detrimental effects on children's well-being and self-esteem and may lead to internalizing (e.g., depression, psychological maladjustment) and externalizing (e.g., violence, school-dropout) problems later (Dunn, 2004; S. Graham & Juvonen, 1998; Hymel, Vaillancourt, McDougall, & Renshaw, 2002; Rubin, Bukowski, & Parker, 2006). For instance, a recent study conducted in Austria showed that, compared to native and other immigrant preadolescents, Turkish preadolescents were at risk concerning their social integration in class (Strohmeier & Spiel, 2003). That is, they had the fewest number of friends in class, reported higher levels of loneliness, and were less accepted by their classmates.

These negative effects of friendship segregation may have far-reaching societal consequences. Children who feel excluded from peer networks because of their ethnic group membership may be less motivated to excel in school and to adopt the norms and values of the receiving society. Thus, the often discussed development of 'parallel societies' (Kaschuba, 2007) within Europe may have less to do with minority members not wanting to integrate but with minority members who perceive that they are excluded. Being included in social groups is increasingly important for children approaching adolescence (Horn, 2003) and therefore

minority children who feel excluded are likely to turn to their own ethnic group for support and comfort.

Weighing the benefits of cross-ethnic friendships against the potentially serious consequences of friendship segregation, it seems pivotal to understand the factors that may promote or hinder cross-ethnic friendships and that may contribute to their maintenance or decline over time. Recent advances in social and developmental psychology highlight a number of predictors of cross-ethnic friendships that warrant further investigation (see McGlothlin et al., 2008 for a review). While a recent revival of research on intergroup contact has lead to important new insights into the mediators of the contact-attitude relationship (cf. Pettigrew, 2008) one glaring gap in this literature concerns the relationship between contact opportunity and contact or cross-group friendship. As Esses and Dovidio (2002) pointed out: “We know a great deal about what happens when different group members come into contact but we know little about the conditions likely to promote intergroup contact in the first place.” (p. 1212). Thus, the aim of the present study was to extend previous work by examining six such promoters, derived from social and social developmental psychological theories, namely outgroup orientation, intergroup attitudes, perceptions of peer norms, perceptions of contact conditions, shared identity, and social competence.

Previous research suggests that majority and minority group children often differ in their friendship patterns (McGlothlin et al., 2008) and it was thus likely that the predictors of cross-ethnic friendship would also differ depending on group status. Therefore, the dynamics of friendship choices and predictors of change and stability were examined from the perspective of ethnic majority and minority preadolescents separately.

A further limitation of previous work on children’s cross-ethnic peer relations is that the majority of studies used cross-sectional designs and only few studies followed children’s friendships longitudinally (e.g., Aboud et al., 2003; J. A. Graham, Cohen, Zbikowski, & Secrist, 1998; Lee, Howes, & Chamberlain, 2007). However, to get further insight into the dynamics of friendships, particularly in the formative period of the beginning of secondary school where most children interact for the first time, it is critical to adopt a longitudinal design. Depending on the time of assessment within the school year, a cross-sectional study may lead to biased information and is not able to track changes in friendships and how these changes may be explained by predicting variables. Hence, I used a longitudinal design to study children’s friendship choices as they entered secondary school. Thus, I was able to investigate how these choices changed over time and what predicted change and stability in friendships.

Another aim of this study was to connect the developmental psychological literature on peer relations with the social psychological literature on intergroup contact. While peer relations researchers have developed sophisticated tools for assessing children's friendships they are rarely interested in issues of race and ethnicity (cf. Quintana et al., 2006; Rubin et al., 2006). On the other hand, intergroup contact researchers have made cross-ethnic or cross-race contact as the main focus of their work but the ways in which they typically measure cross-group friendship are questionable (Aboud et al., 2003; John Dixon, Durrheim, & Tredoux, 2005). As Dixon and colleagues have pointed out, the set of generic questions often used by intergroup contact researchers (e.g., "How many cross-ethnic friends do you have?") limits our understanding of the richness of intergroup dynamics that are at play in specific local contexts. Therefore, I used theorizing from intergroup contact research in combination with methodology borrowed from the peer relations literature to study the dynamic nature of children's friendship choices.

It is also important to note that the relationship between predictors of cross-ethnic friendship and children's friendship choices is complex and multidirectional. For instance, intergroup attitudes may predict engagement in cross-ethnic friendships but the reverse effect, that cross-ethnic friendships predict changes in intergroup attitudes is equally likely (Binder et al., 2009; Levin, van Laar, & Sidanius, 2003). While longitudinal designs allow for statistically disentangling the directionality of effects (e.g., whether cross-ethnic friendships affect intergroup attitudes or vice versa) its theoretical value is limited in this context. The question which effect is stronger is conceptually not very interesting when it is obvious that both directions are plausible. Moreover, longitudinal designs can never demonstrate causality in the sense that experiments can (Singer & Willet, 2003).

In addition, most theorizing in social psychology deals with relationships between constructs without regard for temporal matters (Gleibs, 2007). However, this has led to a static conception about the duration of effects, once they are established (S. G. West, Biesanz, & Kwok, 2004). Yet, effects may be time-varying (Singer & Willet, 2003); that is, an effect may play a role at certain meaningful time points and not at others. Thus, to understand change in friendship choices and the influence of time-variant and time-invariant predictors, I employed hierarchical linear modelling (HLM). The longitudinal design also allowed for testing whether same-ethnic friendships were more likely to be maintained than cross-ethnic friendships and to test individual predictors that would make cross-ethnic friendships more likely to be maintained.

To sum up, this chapter described the broader social context of this study and why it is important to understand more about the formation of cross-ethnic friendships and how they can be promoted. I emphasized the need to study cross-ethnic friendships longitudinally and to connect developmental psychological methodology with social psychological theorizing on intergroup contact. Finally, I described that it is important to adopt a time-sensitive methodology for a complete understanding of the complex and multidirectional relationship between predictors of cross-ethnic friendship and children's friendship choices. The next chapter will provide the theoretical background for this thesis.

*Chapter 2***THEORETICAL BACKGROUND**

This chapter provides a review of the literature relevant for the design of the present study. First, research on cross-ethnic friendships will be reviewed. This section will focus on the benefits, the frequency, and the stability of cross-ethnic friendships. Subsequently, I will describe six areas of research thought to impact children's decision-making about cross-ethnic friendship and that may explain variability and stability of friendship choices. These areas are: outgroup orientation, intergroup attitudes, perceptions of peer norms, perceptions of contact conditions, shared identity, and social competence. Throughout this review, a specific focus is laid on how ethnic majority and minority group children may differ in their friendship patterns and in the extent to which the proposed predictors are important for their friendship decisions.

*Children's Cross-Ethnic Friendships**Benefits of Cross-Ethnic Friendships*

Peer relations play an important role in children's social-cognitive development. As research has shown, positive peer interaction is linked to the development of social competence and prosocial behaviour (Rubin et al., 2006). Conversely, problematic peer interaction is related to later maladjustment such as school-dropout, and internalizing problems (Parker & Asher, 1987). Friendship is a form of peer interaction that is particularly beneficial to the individual, because friendship is associated with higher levels of self-esteem and has protective functions against peer victimization (Rubin et al., 2006). Moreover, friendships between children of different ethnic groups have been shown to reduce prejudice (Pettigrew & Tropp, 2006; Schofield & Eurich-Fulcer, 2001; Tropp & Prenovost, 2008), to provide unique opportunities to develop perspective taking and leadership abilities (Eisenberg et al., 2009; Lease & Blake, 2005), and to be associated with improved academic motivation and performance (Hallinan & Williams, 1990).

Cross-ethnic friendships can influence intergroup attitudes in a number of ways. Children who are friends with members of another ethnic group may realize that they share similar hobbies and interests although they are from different ethnic groups (Pettigrew, 1997, 1998). Further, children with cross-ethnic friends may learn that members of another ethnic group are not all alike but are unique individuals who differ from another in a variety of ways

(Rothbart & John, 1985). While children from an early age comprehend variability of the ingroup they often perceive outgroup members as ‘all alike’, referred to as the ‘outgroup homogeneity’ effect (Park, Ryan, & Judd, 1992). Thus, realizing that outgroup members are not ‘all alike’ may prevent stereotypical judgments being made about these individuals (McGlothlin et al., 2008). In addition, having a cross-ethnic friend may increase sympathetic awareness of the wrongfulness of prejudice and discrimination (S. W. Cook, 1984; Pettigrew, 1997), particularly among majority group members who are usually less prone to become victims of ethnic discrimination (Nesdale, Griffith, Durkin, & Maass, 2005). Moreover, the effects of cross-ethnic friendships can be long-lasting: Having cross-ethnic friends in childhood is thought to lead to more positive intergroup attitudes in adulthood (Aboud & Amato, 2001; Ellison & Powers, 1994; Oliner & Oliner, 1988).

Cross-ethnic friendships are also uniquely associated with the development of social competence (Eisenberg et al., 2009; Kawabata & Crick, 2008). That is, children with cross-ethnic friends are shown to possess more prosocial characteristics (Fletcher, Rollins, & Nickerson, 2004; Hunter & Elias, 1999; Lease & Blake, 2005) and are more likely to be rated as relationally inclusive and as possessing leadership skills by peers and teachers than children without cross-ethnic friends (Eisenberg et al., 2009; Kawabata & Crick, 2008). In other words, cross-ethnic friendships provide opportunities to develop prosocial behaviours that go beyond what same-ethnic friendships can offer. This competence-enhancing effect of cross-ethnic friendships might work through different mechanisms for ethnic majority and minority children. Ethnic majority children may benefit from exposure to peers who differ in meaningful ways from themselves and who may be targets of discrimination. Ethnic minority children, on the other hand, could benefit by learning about social behaviours accepted in the majority culture, adopting prosocial norms of the majority culture, and feeling more integrated into the larger society (Eisenberg et al., 2009).

There may also be additional benefits of cross-ethnic friendships in terms of educational achievement and career prospects. For ethnic minority children, having cross-ethnic friends is associated with high academic aspirations and performance (Hallinan & Williams, 1990) and opens up access to networks that might enhance chances of future employment (Braddock & McPartland, 1987). Social capital theorists (e.g., Putnam, 2000) point to the importance of social networks in providing access to employment, particularly in societies where social mobility is low; hence, having cross-ethnic friends could have strategic advantages for minority children. Ethnic majority children might also benefit because intercultural competence has become an important personal asset in an increasingly

multiethnic work environment (Thomas, 1998). Thus, ethnic majority children with cross-ethnic friends might be better prepared to work in ethnically diverse teams later in life.

In sum, cross-ethnic friendships provide important benefits to the individual and also to our communities. For instance, Laurence and Heath (2008), using data from the 2005 Citizenship Survey in the UK, showed that having friends from ethnic groups other than one's own was a strong positive predictor of community cohesion. As Titzmann, Silbereisen, and Schmitt-Rodermund (2007) pointed out, cross-ethnic friendships can be seen as a benchmark for the integration of migrants into receiving societies. Thus, understanding how to promote cross-ethnic friendships is therefore important in order to improve intergroup relations.

Frequency of Cross-Ethnic Friendships

Children base their friendship decisions on perceptions of similarity along a number of dimensions including gender, ethnicity, age, and activity preferences (Aboud & Mendelson, 1996). Likewise, peers may be rejected from friendships based on perceptions of dissimilarity (M. L. Clark & Ayers, 1992). Because peer rejection has detrimental effects on children's well-being and development (Parker & Asher, 1987) it is important to understand which features children attend to when making decisions about rejecting peers.

To date, the extensive literature on peer rejection has mainly focused on the social skills of individual children as a determinant of peer group acceptance or rejection (Crick & Dodge, 1994; Rubin et al., 2006). According to this perspective, children with poor social skills and aggressive children are less accepted, and are therefore more likely to be rejected by their peers, than children who display prosocial and empathic skills. While the importance of social competence in forming and maintaining friendships is well established empirically, other factors, such as a child's ethnicity, have received less scholarly attention. However, research on the frequency of cross-ethnic friendships suggests that ethnicity does play an important role in children's decisions about friendship.

In support of this statement, studies comparing same- and cross-ethnic friendships in various countries and with various ethnic groups have consistently found a preference for same- over cross-ethnic friendships among children as young as three (Aboud et al., 2003; Boulton & Smith, 1996; Fishbein & Imai, 1993; J. A. Graham & Cohen, 1997; Hallinan & Teixeira, 1987; Hamm, Brown, & Heck, 2005; Kao & Joyner, 2004; Kupersmidt, DeRosier, & Patterson, 1995; Shrout, Cheek, & Hunter, 1988), referred to as preference for same-ethnic friendships (PSF) from now on. Some scholars suggest that PSF is greater among ethnic majority than among ethnic minority children (McGlothlin et al., 2008; Quillian & Campbell, 2003). That is, ethnic minority children tend to have more cross-ethnic friends than ethnic

majority children. However, while this assertion is true in absolute terms, many studies did not control for availability of classmates. This is important because ethnic minority children are by definition often a numerical minority in the school class and so their baseline probability of having cross-ethnic friends is usually higher than that of ethnic majority children.

Studies that did control for availability have yielded mixed findings. While one study found majority status children to show stronger PSF than minority status children (Howes & Wu, 1990) other studies found the opposite pattern (Baerveldt, Van Duijn, Vermeij, & Van Hemert, 2004; Kawabata & Crick, 2008). Moreover, interactions between ethnicity and gender were found to show no consistent pattern (Aboud et al., 2003; J. A. Graham et al., 1998; Hallinan & Teixeira, 1987). Coinciding with the transition from elementary to secondary school, there is a dramatic decline in the number of cross-ethnic friendships among both ethnic majority and minority children (Aboud et al., 2003; DuBois & Hirsch, 1990; J. A. Graham & Cohen, 1997; J. A. Graham et al., 1998; Hallinan & Teixeira, 1987; Shrum et al., 1988).

A number of factors have been put forward to explain the likelihood and frequency of cross-ethnic friendships in the school class. Some of these factors can be derived from classical theories of interpersonal attraction, such as balance theory (Heider, 1958; Newcomb, 1961) and social exchange theory (Blau, 1964). These theories contain a common set of principles that are essential for interpersonal attraction: *proximity*, *homophily*, *transitivity*, *reciprocity*, and *status*. Arguably, these principles can be used to explain intergroup attraction as well. In the following sections, each principle and how it might affect the frequency of cross-ethnic friendships will be discussed.

Proximity. Obviously, opportunity for contact has to be present in order for cross-ethnic friendships to form. That is, opportunities to engage in cross-ethnic friendships are limited in school classes that are ethnically homogeneous. Yet, the relationship between ethnic heterogeneity and PSF is complex. Moody (2001) has shown a curvilinear relationship between ethnic heterogeneity and PSF: As ethnic heterogeneity increases, PSF first increases as well and peaks when there are two ethnic groups equal in size. PSF does not decline (again) until ethnic heterogeneity reaches a level where there is no longer an ethnic majority. This may explain in part why studies conducted in highly diverse cities like Toronto failed to find any evidence of PSF among adolescents (e.g., Smith & Schneider, 2000).

The counterintuitive finding that PSF first increases as a function of ethnic heterogeneity (Moody, 2001) may be explained in terms of ethnic group competition theory

(Coenders, Gijsberts, Hagendoorn, & Scheepers, 2004; Scheepers, Gijsberts, & Coenders, 2002). This theory assumes that when ethnic minorities challenge the position of the ethnic majority group, threat is likely to be experienced by members of this group. As a result the majority group is likely to harbour more negative attitudes toward the minority group making cross-ethnic interaction more difficult. However, at the point where ethnic heterogeneity reaches a maximum there is not really one group that challenges another one. Instead there are many small groups so that competition may not arise. This is supported by studies on the effect of relative group size on competitiveness, which have shown that competition is greatest when there are two equally sized groups opposing each other (Bettencourt, Charlton, & Kernahan, 1997; Bettencourt, Miller, & Hume, 1999; Otten, Mummendey, Blanz, Hogg, & Abrams, 2001).

In addition, opportunities for contact might differ between the school and home environment of a child. Children living in integrated neighbourhoods also have cross-ethnic friends outside of the school (DuBois & Hirsch, 1990). Furthermore, there is an indication that cross-ethnic friendships that extend beyond the school are particularly valuable as they are associated with greater social competence among ethnic minority children (Fletcher et al., 2004). Also, while generally rated equal in quality, Aboud et al. (2003) found cross-ethnic friendships to be rated as less intimate. Possibly, this lack of intimacy among cross-ethnic friends stems from a lack of opportunity to meet outside the classroom. Unfortunately, neighbourhoods in the United States as well as Western Europe tend to be highly segregated, making cross-ethnic contact outside of school very difficult.

Homophily. Birds of a feather flock together. That is, contact between similar people occurs at a higher rate than between dissimilar people (McPherson, Smith-Lovin, & Cook, 2001). According to the similarity-attraction hypothesis (Byrne, 1971), people are attracted to others that are similar to them. Yet, the psychological sources of homophily are not well understood. With regard to social groups, ethnic homophily can be a form of ingroup favouritism and could thus be explained by Social Identity Theory (Tajfel & Turner, 1979), which posits that people have a need for positive social identity. When ethnicity is an important aspect of people's social identity, they will think and act in terms of this collective identity and will thus favour their ingroup.

Yet, ethnicity is not the only dimension on which children base their perceptions of similarity, which are relevant for their friendship choices. Similarity in activity preferences is also important (Aboud & Mendelson, 1996), because shared interests form the basis for future interactions and thus increase attraction between potential friends (McGlothlin et al., 2008).

The question then arises whether children give priority to ethnicity or race over shared interests when making decisions about friendship. In a series of studies, McGlothlin, Killen and colleagues (Margie, Killen, Sinno, & McGlothlin, 2005; McGlothlin & Killen, 2005; McGlothlin, Killen, & Edmonds, 2005) have investigated how children weight ethnic similarity compared to similarity regarding activity interests when judging friendship potential. Their findings indicated that children in ethnically heterogeneous schools focused more on similarity in activity interests than on ethnicity when asked to judge whether two fictitious cross-ethnic children could be friends. This implies that when children do not have any information regarding activity interests they are likely to base their friendship decisions on physical appearance (Doyle & Aboud, 1995; Katz, Sohn, & Zalk, 1975). However, when children also know about the hobbies and interests of their peers, this knowledge may become more important for their friendship choices than physical similarity alone.

Transitivity. Transitivity refers to the principle of balance (Heider, 1958): A friend of a friend is likely to become a friend. Balance effects are well established empirically in the social networks literature (Wasserman & Faust, 1994). Here, studies that have followed social networks over time have found a tendency among network actors to befriend their friends' friends and to break ties with friends who have friends they are not friends with (e.g., Steglich, Snijders, & West, 2006). Balance theory (Heider, 1958) suggests that imbalanced relationships between three people (e.g., A is friends with B and C, but B and C are not friends) create tensions and therefore motivate individuals to establish balance again: either by closing a link (e.g., between B and C) or by breaking a link (e.g., between B and A).

This has at least two possible implications for the development of cross-ethnic friendships. On the one hand, a child with an ingroup friend that has an outgroup friend is likely to befriend the ingroup friend's outgroup friend in turn. This is also supported by the extended contact effect (Wright, Aron, McLaughlin-Volpe, & Ropp, 1997), which suggests that observing an ingroup member in close contact with an outgroup member might be sufficient to improve attitudes towards the outgroup. On the other hand, the child might break the friendship to the ingroup member. For instance, Castelli and colleagues (2007) have shown that young children dislike ingroup members who associated closely with outgroup members and have termed this the 'loyal member' effect. Thus, transitivity might work both as a promoter and a barrier to cross-ethnic friendships.

Reciprocity. People like others that like them in return (Dittes, 1959). Some studies suggest that ethnic minority children do at first nominate equal numbers of same- and cross-ethnic friends but that their nominations of cross-ethnic friends are less likely to be

reciprocated by their ethnic majority peers (J. A. Graham & Cohen, 1997; Hallinan & Teixeira, 1987; Hallinan & Williams, 1987). However, nomination of ethnic majority children as friends by ethnic minority children declines after elementary school, possibly as a consequence of this lack of reciprocation (J. A. Graham & Cohen, 1997; Hallinan & Teixeira, 1987). Whether cross-ethnic friendship nominations are reciprocated or not, and how this might be moderated by ethnic group membership, is an interesting research topic in itself.

However, the focus of this thesis is on mutual friendships where both members of a friendship dyad reciprocate the friendship. From a methodological viewpoint a focus on mutual friendships is superior to one-way friendship nominations, because one-way friend nominations do not necessarily demonstrate either a relationship or actual contact (Aboud et al., 2003; Rubin et al., 2006). As Aboud and colleagues (2003) point out:

“It would be misleading to use one-way friend nominations to demonstrate the relation between friendship and intergroup attitudes, in that the link is nothing more than a trivial connection between expressing a desire to befriend many members of the group and evaluating the group positively – useful validating information but not theoretically interesting.” (p.165)

Unfortunately, most research on intergroup contact has extensively relied on one-sided friendship nominations, raising concerns about the validity of these findings.

Status. High social status among peers is a source of attraction for preadolescents making choices about friendships (Rubin et al., 2006). Social status can derive from various sources and one that figures prominently in the classroom is academic achievement. With regard to cross-ethnic friendships, Hamm, Brown, and Heck (2005) showed that American White adolescents with a high grade point average were less likely to nominate cross-ethnic peers as friends, while the opposite was found for African American and Latino students. In other words, ethnic minority children who did well in school were more likely to nominate cross-ethnic friends. Yet, one should take into account that ethnicity and academic achievement are heavily confounded when interpreting these findings. That is, ethnic majority children usually perform better in school than ethnic minority children in both the United States (with the exception of Asian American students) and Europe (Schofield, 2006). Thus, the results of Hamm et al. (2005) speak for an equal status effect: Adolescents select friends on the basis of academic achievement rather than ethnicity.

Apart from academic achievement, social status can also derive from prosocial behaviour and leadership characteristics. Two alternative scenarios are possible for the relation between peer status and the frequency of cross-ethnic friendships (cf. Lease & Blake,

2005): Either children low in peer status turn to cross-ethnic peers as friends, because they have no one else to choose from. Or, alternatively, children high in peer status can afford to cross ethnic boundaries and have cross-ethnic friends by virtue of their superior position.

Lease and Blake (2005) found support for the latter scenario and similar findings have been reported in other studies (J. A. Graham et al., 1998; Kawabata & Crick, 2008).

Status can affect cross-ethnic peer relations in yet another, more indirect, way. Ethnic minority groups often possess lower status in society than the ethnic majority group and children from both groups have been shown to be aware of these status differences (Kiesner, Maass, Cadinu, & Vallese, 2003; Verkuyten, Hagendoorn, & Masson, 1996). Thus, low-status ethnic minority children might be less attractive as friends to high-status ethnic majority children. Yet, within the classroom status might also depend on who is in the numerical majority. Consequently, one study showed that ethnic composition of the school classes influenced sociometric ratings of African American but not of White American children (Jackson, Barth, Powell, & Lochman, 2006). While White American children's acceptance remained almost unaltered, African American children's acceptance increased as a function of the proportion of Black children in the classroom.

In sum, the frequency of cross-ethnic friendships is influenced by a myriad of factors, including proximity, homophily, transitivity, reciprocity, and status. Yet, the sheer frequency of cross-ethnic friendships does not say anything about their longevity. In the following section, the literature on the stability of same- and cross-ethnic friendships will therefore be reviewed.

Stability of Cross-Ethnic Friendships

The stability of friendships, and of cross-ethnic friendships in particular, has received little empirical attention (Hallinan & Williams, 1987; Lee et al., 2007). However, friendship stability is an important index of the depth of a friendship, particularly among preadolescents for whom intimacy becomes a major building block of friendship (Schneider et al., 2007). In comparison to short-lived friendships, longer-lasting friendships are likely to be more influential and to yield more room for common experiences that are necessary for friendships to exert their positive potential. After all, spending a lot of time with a friend is part of the essence of friendship in this age group (Rubin et al., 2006). In contrast, short-lived and ever-changing friendships might have detrimental effects on children's wellbeing and self-concept.

In contrast to later findings, Hallinan and Williams (1987) found cross-ethnic friendships to be almost as stable as same-ethnic friendships. They further showed that individual and dyad (reciprocity and same gender), as well as organizational level factors

(classroom ethnic composition and class climate), influenced cross-ethnic friendship stability. Conversely, Aboud and colleagues (2003) found cross-ethnic friendships but not cross-ethnic companions (an index of loosely associated peers), to be less stable than same-ethnic friendships. These authors also showed that cross-ethnic friendships were generally equal in quality to same-ethnic friendships.

The lack of stability in cross-ethnic friendships was replicated in two recent studies (Lee et al., 2007; Schneider et al., 2007). Schneider and colleagues (2007) also assessed friendship quality and contended that there was no specific aspect of the quality of cross-ethnic friendships that makes them more likely to dissolve. Hence it is puzzling that despite being similar in quality (see also Smith & Schneider, 2000), cross-ethnic friendships are less stable than same-ethnic friendships (Lee et al., 2007). Consequently, other factors than friendship quality might be responsible for the shorter longevity of cross-ethnic friendships.

Predictors of variability and stability of preadolescents' friendship choices

The following sections will examine six areas of research proposed to impact children's decision-making about cross-ethnic friendship and that may explain variability and stability of friendship choices. These areas are: outgroup orientation, intergroup attitudes, perceptions of peer norms, perceptions of contact conditions, shared identity, and social competence.

Outgroup Orientation

When migrants or descendants of migrants come into first-hand contact with members of the receiving society a process of acculturation is thought to occur that may lead to "[...] changes in the original culture patterns of either or both groups [...]" (Redfield, Linton, & Herskovits, 1936, p. 149). Although acculturation research has mainly focused on the acculturation of immigrants in a new host society, the term acculturation refers to cultural change in one or more groups as a result of intergroup contact (Berry, 1990) and implies that the majority group changes as well. Attitudes on how this process of acculturation should ideally occur have been labelled acculturation orientations (see Rudmin, 2003 for a comprehensive review of acculturation theories and concepts).

Berry, Trimble, and Olmedo (1986) proposed an influential two-dimensional framework of acculturation orientations. The first dimension, ethnic identity, describes the degree of concern with maintaining the cultural identity and characteristics of one's ingroup. The second dimension, outgroup orientation, reflects one's degree of concern for developing and maintaining relationships with other groups. Contact with culturally different groups is

thought to be an integral part of the latter dimension (Berry, 1997). Thus, Outgroup orientation should result in increased efforts to meet native or immigrant peers respectively (cf. Titzmann et al., 2007). One explanation why people should value relationships with other groups is that these groups provide the opportunity for self-expansion. That is, people might seek contact with people from groups other than one's own to increase their constellation of resources, perspectives, and identities (Wright, Aron, & Tropp, 2002). This is akin to Putnam's (2000) notion of bridging (as opposed to bonding) social capital.

The empirical evidence on the relation between outgroup orientation and cross-ethnic friendship, however, is scarce. In one study, Titzmann et al. (2007) found that Russian Jewish adolescent immigrants in Israel and ethnic German adolescent immigrants in Germany who showed a high willingness for inter-ethnic contact also had more cross-ethnic friends. Yet, this study focused exclusively on minority samples and did not include members of the host society. Other studies showed that outgroup orientation functions as a mediator between perceived contact conditions and reduced prejudice in adolescents (Molina & Wittig, 2006; Molina, Wittig, & Giang, 2004; Rabinowitz, Wittig, von Braun, Franke, & Zander-Music, 2005). There are also no consistent findings on whether majority and minority status children differ to the extent to which they seek contact with outgroup members. However, it seems that outgroup orientation has different meanings and implications across different ethnic groups. In a recent study, outgroup orientation was related to ethnic identity for Latinos and Asian Americans, but not for African Americans or European Americans (Phinney, Jacoby, & Silva, 2007). More specific to the context of this study, the term ethnic/racial group is not commonly used in Germany for historical reasons and people refer to nationality instead. Moreover, representative surveys of the German population have shown that ethnic Germans when prompted who they associate with the term 'foreigner' say they think of Turkish people (Asbrock, Lemmer, Wagner, Becker, & Koller, 2008; Asbrock, Wagner, & Christ, 2006). Thus, when German children are asked for their openness towards contact with other national groups they will likely think of Turkish children, as these belong to the most salient and representative ethnic/national minority group in their environment. Yet, outgroup orientation might be less predictive of Turkish children's PSF as for them outgroup orientation might mean being open to contact with other non-German national groups.

Children's Intergroup Attitudes

Friendships are more likely to form between children who hold each other in positive regard, having positive attitudes for one another (Aboud & Mendelson, 1996; Rubin et al., 2006). Yet, attitudes about others may be based on stereotypes and prejudice, factors that are

outside the others' control. While stereotypes are "beliefs about the characteristics, attributes, and behaviors of members of certain groups" (Hilton & von Hippel, 1996, p. 240) prejudice can be defined as "the holding of derogatory social attitudes or cognitive beliefs, the expression of negative affect, or the display of hostile or discriminatory behaviour towards members of a group on account of their membership in that group" (Brown, 1995, p. 8). Taken together stereotypes and prejudice can be seen as associated components of a more overriding orientation or predisposition towards the group that may be labelled intergroup attitudes (Wright & Taylor, 2003, p. 433).

Another important distinction can be made between explicit and implicit forms of attitudes. While explicit attitudes refer to cognitions and affective reactions that are consciously accessible and can thus potentially be inhibited due to impression management motivations, implicit attitudes operate outside a person's conscious control (Greenwald & Banaji, 1995). Although essentially different methods are used to measure explicit and implicit attitudes (see section on measurement of children's intergroup attitudes below), they also seem to be psychologically distinct constructs that are often unrelated (Dovidio & Fazio, 1992) and are differentially related to intergroup interaction behaviour (Dovidio, Kawakami, & Gaertner, 2002). While implicit attitudes predict subtle, nonverbal behaviours, explicit attitudes predict more controlled, conscious and verbal aspects of behaviour in cross-ethnic interaction (Dovidio et al., 2002). Thus, implicit attitudes may be less apt in predicting decision-making about cross-ethnic friendships because of the conscious and deliberate nature of friendship decisions. In support of this argument, R. N. Turner, Hewstone, Voci, and Vonfakou (2008) found cross-group friendships to reduce explicit prejudice while implicit attitudes were influenced by mere exposure to the outgroup but not friendship.

Thus, when children hold (explicit) negative attitudes about another ethnic group it is unlikely that they will select a member of that group as a friend. Aboud et al. (2003) found a relationship between European American children's prejudice levels and exclusion of African American children. European American children low in prejudice had more cross-ethnic companions and higher quality cross-ethnic friendships, while those high in prejudice tended to exclude cross-ethnic peers. The authors did not find any relation between attitudes and peer relations among ethnic minority children. However, this study did not look at the contact-attitude relationship longitudinally.

Another study found both majority and minority status adolescents with strong ingroup preferences to be less likely to nominate cross-ethnic peers as friends (Hamm et al., 2005). Again, this study was cross-sectional and did not measure intergroup attitudes but the

degree to which participants preferred same-ethnic friends. However, it remains questionable whether preference for same-ethnic friends and actual cross-ethnic friendship nominations are distinct constructs. Nonetheless, it seems important to measure intergroup attitudes when investigating children's preference for same-ethnic friendships. When assessing intergroup attitudes among children, it is essential to understand how these attitudes form and develop.

Acquisition of intergroup attitudes. One of the early approaches to the development of children's intergroup attitudes is the Innate State Theory. Guided by psychoanalytic thinking, this approach sees prejudice as deeply rooted in personality and stemming from early childhood experiences. One of the most prominent examples of this approach, the Theory of the Authoritarian Personality (TAP; Adorno, Frenkel-Brunswik, Levinson, & Sanford, 1950), assumes that prejudice results from overly harsh parenting practices. TAP further proposes that children redirect the ensuing aggression towards their parents onto 'weaker' and 'inferior' members of society, such as deviants and ethnic minorities. As a result, individuals are thought to become overly submissive towards authority figures, and overtly aggressive against outgroup members, constituting elements of the so-called 'Authoritarian Personality'. However, this approach has several shortcomings: First, it does not account for the importance of social context in shaping people's attitudes (Pettigrew, 1999). Second, it cannot explain group level differences in prejudice, why some groups of people (e.g., Nazis in Germany, Whites in South Africa) are more prejudiced than others. Finally, the Innate State Theory is hard pressed to explain sudden changes in prejudice, which have been documented in response to collective threat (e.g., Duckitt, Wagner, du Plessis, & Birum, 2002) and which cannot be explained by changes in child-rearing practices.

In sharp contrast to the Innate State Theory, Social Reflection theorists assume that children's attitudes are simply a product of their social environment. Thus, children are thought to reflect the attitudes and values of their community, which are typically transmitted by their parents. Inspired by Social Learning Theory (Bandura, 1977), children are thought to learn attitudes by direct training or by observing their parents' behaviour. According to Social Reflection Theory, young children should be unprejudiced. As children get older and as they learn from others the structures of society, they should gradually become more prejudiced, reflecting the status differences between different social groups. While a strength of this approach is its ability to explain why certain social groups are more derogated than others (reflecting the structure of society), it also faces a number of problems:

First, studies on the relation between the intergroup attitudes of children and their parents have shown a highly inconsistent overall pattern of results (see Fishbein, 2002, for a

recent review). While some studies found a moderate relation (Carlson & Iovini, 1985; O'Bryan, Fishbein, & Ritchey, 2004), others have found a null correlation between children's and parents' attitudes (Aboud & Doyle, 1996b). It is possible that these inconsistent findings stem from measurement problems and a failure to distinguish between implicit and explicit attitudes. One recent study found racial attitudes of 3- to 6-year-old children to be significantly related to mother's (but not father's) implicit, but not explicit, racial attitudes (Castelli, Zogmaister, & Tomelleri, 2009). Second, contrary to the assumption of Social Reflection Theory, young children often show strong ethnic and gender biases (Aboud & Amato, 2001; Brown, 1995) and prejudice does not increase with age (Nesdale, 2001). Finally, the biggest conceptual problem of this approach is that it sees children as passive recipients of parental transmission and not as active agents who interpret their own social world (cf. Bigler & Liben, 2006). Yet, recent evidence points to the importance of agentic processes like social projection for the development of children's and adolescents' intergroup attitudes (e.g., Gniewosz, Noack, Wentura, & Funke, 2008).

Aboud's (1988) Cognitive Developmental Theory (CDT) is the first comprehensive theory of children's development of intergroup attitudes. This theory sees children's prejudice as caused by information processing errors due to young children's poor cognitive abilities. According to CDT, young children are prone to prejudice because they lack the ability to classify objects or persons on multiple dimensions. In other words, young children see the world in bipolar terms (e.g., good or bad) and cannot attend to individuated information. Only with cognitive development do children begin to make judgments about people based on personal characteristics and not just group membership. CDT predicts children to develop prejudice around three years of age and that prejudice should rise and peak around age eight or nine when children are particularly preoccupied with group membership. After age nine prejudice should decline again as children develop multiple classification skills.

Empirical evidence supports CDT's claim that ethnic prejudice is high among young children and decreases with age (Aboud, 1988; Aboud & Amato, 2001; Doyle & Aboud, 1995). However, like the previously discussed approaches, CDT fails to consider motivational processes and contextual influences on children's intergroup attitudes. Thus, CDT cannot explain group differences in prejudice (e.g., why majority-status children are more prejudiced than minority-status children). Further, CDT seems to be domain-specific as other forms of prejudice (e.g., national) are found to increase with age (e.g., Rutland, 1999). Moreover, recent findings seem to suggest that the proposed reduction in ethnic prejudice may be an artefact of relying exclusively on explicit attitude measures that are prone to social desirability

concerns (Baron & Banaji, 2006; Rutland, Cameron, Milne, & McGeorge, 2005). Baron and Banaji (2006) showed that explicit and implicit attitudes diverge at age ten when explicit attitudes decrease while implicit attitudes remain constant. Rutland et al.'s (2005) study suggests that this divergence occurs because older children have internalized the norms to appear unprejudiced and thus do not report explicit prejudice anymore.

Two theories that do incorporate motivational processes and social contextual factors relevant for understanding prejudice are Social Identity Theory (SIT; Tajfel & Turner, 1979) and Self Categorization Theory (SCT; J. C. Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). SIT posits that individuals are motivated to think positively about themselves and about the groups they belong to. Following SIT, social identification occurs when the self is defined in terms of group membership and the focus shifts from "I" to "we". When individuals self-categorize in terms of "we" they are also more likely to use categories to structure their social world by dividing it into distinct categories (e.g., "us" and "them", ingroup vs. outgroup). SIT further postulates that group members identifying with their group compare their group with a salient outgroup on relevant dimensions. The underlying motive is to establish positive distinctiveness of their ingroup which leads to positive social identity. One way to establish positive distinctiveness is ingroup favouritism.

How can SIT be used to explain the development of children's intergroup attitudes? Powlishta, Serbin, Doyle, and White (1994) suggested that the positive self-esteem that derives from positive distinctiveness of the ingroup may be so powerful that it overrides any effect of cognitive flexibility on prejudice development. In other words, older children may stay prejudiced even though they possess the cognitive abilities that would potentially allow them not to engage in biased intergroup comparisons. Support for this idea comes from studies on gender prejudice showing that children with a strong social identity are driven to make biased intergroup comparisons to help establish positive group distinctiveness (Maccoby, 1988; Maccoby & Jacklin, 1987; Yee & Brown, 1994). An advantage of the SIT approach compared to Social Reflection Theory is that it sees the child as having an active role in the development of intergroup attitudes. As Milner (1997) argues, the child has a basic need for developing an identity and therefore actively seeks out information in the environment that involves social comparison.

In contrast to CDT (Aboud, 1988), SCT (J. C. Turner et al., 1987) assumes that prejudice does not result from information processing errors due to cognitive limitations, but is an effortful and psychologically meaningful attempt to understand one's social reality. Thus, SCT sees prejudice not primarily as a product of children's cognitive ability, but as

closely related to the appropriateness and meaning of categorization prescribed by the comparative and normative context (Rutland, 1999). Empirical findings are consistent with the view of SCT that age alone does not predict prejudice. Accordingly, young children do not necessarily show prejudice and ingroup bias (e.g., Jaspars, Van de Geer, Tajfel, & Johnson, 1972) while it is still possible that older children and early adolescents do show prejudice and ingroup bias (Abrams, Rutland, & Cameron, 2003; Abrams, Rutland, Cameron, & Marques, 2003; Augoustinos & Rosewarne, 2001; Bennett, Lyons, Sani, & Barrett, 1998).

A study by Black-Gutman and Hickson (1996) illustrates how the comparative context and its construal influences the expression of prejudice as SCT would predict. This study assessed racial attitudes of European Australian children toward Asian and Aboriginal Australians across three age groups. While the findings partly supported the cognitive maturation prediction by CDT (Aboud, 1988) in that older children showed less outgroup bias than younger children, they also showed important differences in bias between the two minority groups. Aboriginal Australians were rated more negatively than Asian Australians by all age groups, suggesting that social-environmental factors such as ethnic hierarchies (cf. Verkuyten et al., 1996) made it seem appropriate to older children to show prejudice towards Aborigines but not towards Asians.

While SIT and SCT provide a useful basis for studying children's development of intergroup attitudes, these theories also have some shortcomings. First, as these theories were conceptualized with adults in mind, they make no predictions about age trends in children's intergroup attitudes and thus have trouble explaining the age trends found in the literature (e.g., Doyle & Aboud, 1995). Second, very few studies have tested the predictions made by SIT and SCT with children so far. Finally, there is an indication that social categorization might be enough to elicit ingroup favouritism but not necessarily outgroup derogation among children (J. A. Cameron, Alvarez, Ruble, & Fuligni, 2001; Nesdale, 2001). Thus, it seems that research on children's intergroup attitudes would benefit from a closer examination of the social context of the attitudes and on how group processes and norms impact on children's intergroup attitudes (McGlothlin et al., 2008).

Nesdale (2004) has proposed Social Identity Developmental Theory (SIDT), which is inspired by SIT and SCT but explicitly addresses developmental stages and the importance of group processes for the development of children's prejudice. SIDT assumes that children's intergroup attitudes develop over four sequential phases (undifferentiated, ethnic awareness, ethnic preference, and ethnic prejudice). The first two phases mainly concern the development of children's ability to understand which ethnic group they belong to and the standing of their

group in society compared to other ethnic groups. From the age of four, children are thought to prefer their ethnic ingroup over outgroups (ethnic preference phase). But this does not mean that children actively dislike or hate outgroups. Thus, young children show ingroup preference but not prejudice towards outgroups. SIDT argues that ingroup preference is the result of children comparing groups in terms of status and preferring to be members of high rather than low status groups in order to heighten self-esteem. In the fourth phase, ethnic prejudice, outgroups are really hated and derogated. However, not all children enter this phase according to SIDT. Whether children develop prejudice then depends on three factors: a) high identification with the ingroup, b) social norms in the environment of the child that condone prejudice, and c) the belief that the ingroup's well-being or status is being threatened by the outgroup.

The main assumptions of SIDT that stress the importance of group identification, social norms, and intergroup competition for the development of children's intergroup attitudes have been well supported empirically (Nesdale, Griffith et al., 2005; Nesdale, Griffiths, Durkin, & Maass, 2007; Nesdale, Maass, Durkin, & Griffith, 2005). However, no study to date has addressed SIDT's proposition that prejudice should develop sequentially in four distinct phases. Longitudinal research would be necessary to test these assumptions. Moreover, research on SIDT has almost exclusively relied on samples of majority status children and it is questionable whether the assumptions of SIDT would also hold for minority status children who often do not show ingroup preference before middle childhood (Aboud, 1988; Aboud & Amato, 2001).

More recently, a number of theories have been suggested that integrate the importance of children's cognitive development and social-environmental factors in shaping children's intergroup attitudes (Bar-Tal & Teichman, 2005; Barrett & Davis, 2008; Bigler & Liben, 2006). However, a detailed examination of these theories is beyond the scope of this chapter for two reasons. First, these theories are either specific to the context of intractable conflict (Bar-Tal & Teichman, 2005) or represent further elaborations of theories like SIT and SCT (Barrett & Davis, 2008) or CDT and SIT (Bigler & Liben, 2006). Second, no sound empirical basis exists for evaluating these theories as they have not been subject to thorough empirical testing, yet. Because intergroup attitudes are complex and influenced by social cognitive processes as well as social contextual factors, it is important to understand how intergroup attitudes are measured.

Measurement of children's intergroup attitudes. A popular way of assessing children's intergroup attitudes have been preference and trait attribution tasks. One of the earliest

preference tasks is the Doll Test (K. B. Clark & Clark, 1947), in which children are asked to choose between a White and a Black doll in answer to the question who they would like to play with or who is good or bad. While easy to administer and comprehensible to even very young children, the Doll Test has been discredited for its forced choice format that confounds ingroup bias and outgroup negativity (J. A. Cameron et al., 2001; Nesdale, 2001). Examples of trait attribution tasks are the Preschool Racial Attitude Measure (PRAM; J. E. Williams, Best, & Boswell, 1975) and the Multi-response Racial Attitude measure (MRA; Doyle & Aboud, 1995). In trait attribution tasks children are asked to assign positive (e.g., good, clean) and negative (e.g., bad, dirty) traits to figures representing the ingroup or outgroup. An intergroup bias score is then derived from the ratio of positive to negative traits chosen for ingroup versus outgroup targets. While the MRA allows for assigning positive and negative evaluations to more than one group, trait attribution tasks essentially face the same problems as preference tasks: They still do not allow for a separate assessment of attitudes toward the ingroup and outgroup, because children are not given the option to say that none of the groups have the attribute (J. A. Cameron et al., 2001).

Thus, it is preferable to assess attitudes toward the ingroup and outgroup separately and to refrain from computing ratio scores. As Verkuyten (2002) argues, attitudes toward the ingroup and towards the outgroup are associated with distinctly different psychological constructs. In Verkuyten's (2002) study the former was linked to group identification while the latter was connected to ethnic victimization. One way to assess ingroup and outgroup attitudes separately is to use Likert scales. For example, Kinket and Verkuyten (1999) asked children to indicate how many members of the ingroup and outgroup possessed certain positive characteristics and answers were given on five-point scales ranging from 'none' to 'all'. Mean scores are then computed separately for ingroup and outgroup. Moreover, there is an indication that children are not willing to differentiate between groups on negative attributes (Bennett et al., 1998; Davey, 1983; Rutland, 1999). In other words, while children might assign more positive attributes to the ingroup than to the outgroup, they show no intergroup difference in the assignment of negative traits. Thus, it seems advisable to use only positive traits when assessing explicit intergroup attitudes among children (cf. Feddes, Noack, & Rutland, 2009).

More recently, scholars have started to use implicit measures of children's intergroup attitudes like the Implicit Association Test (Greenwald, McGhee, & Schwartz, 1998) or the Ambiguous Situations Task (AST; McGlothlin et al., 2005) in an attempt to minimise the effects of older children's efforts to appear unprejudiced. The IAT is a computer-based

reaction time task that measures the speed of association between targets (e.g., ingroup, outgroup), and traits (e.g., good, bad). The underlying assumption is that strongly related target-attribute combinations (e.g., outgroup-bad) elicit quicker reactions than weakly related target-attribute combinations (e.g., ingroup-bad) and thus reflect ingroup bias. The IAT has been successfully employed with children from age five onwards (Baron & Banaji, 2006; Rutland et al., 2005). However, despite its frequent use particularly with adult samples, the IAT remains highly controversial. Conceptual debates revolve around whether implicit attitudes are indeed an evaluation of the target group (Greenwald & Banaji, 1995) or merely reflect associations held as a consequence of societal influence (Karpinski & Hilton, 2001). Further, critics have pointed out that unlike commonly assumed, the IAT is not immune to social desirability concerns (Steffens, 2004) and that effect sizes of the traditional IAT are artificially inflated due to recoding effects as a consequence of the IAT's block structure (Rothermund & Wentura, 2004).

The AST (McGlothlin et al., 2005) is a pictorial measure that asks children to interpret ambiguous situations, in which a transgression of a potential perpetrator towards a victim might or might not have occurred. For example, in one situation a child has fallen off a swing and another child is standing behind the swing and might or might not have pushed the fallen child. The same situation is presented twice while the ethnicity of the characters is varied. Children's attributions of the perpetrator's intentions (negative or neutral) and of the potential for friendship between the two characters are recorded. When children attribute more negative intentions to the outgroup character than to the ingroup character, this is thought to reflect ethnic bias.

McGlothlin and colleagues have successfully used the AST in a series of studies (Margie et al., 2005; McGlothlin & Killen, 2006; McGlothlin et al., 2005). Their results indicate that children attending ethnically heterogeneous schools showed minimal amounts of bias, while bias was higher among children attending ethnically homogeneous schools. Interestingly, majority children in homogeneous schools were less optimistic about the potential for cross-ethnic friendship between the two characters in the situation than children in heterogeneous schools. Yet, even if children attending homogeneous schools showed ingroup bias, they did not dislike the outgroup. Nonetheless, as these studies illustrate, ingroup bias can be just as harmful with regard to peer relationships as outgroup negativity, because children who displayed ingroup bias evaluated cross-ethnic friendship as less likely. Thus, even though it is important to distinguish between ingroup bias and outgroup derogation when measuring children's intergroup attitudes (J. A. Cameron et al., 2001), peer

rejection based on ethnicity can still occur even though outgroup members are not actively disliked (McGlothlin et al., 2008).

As described above, intergroup attitudes consist of both stereotypes and prejudice (Wright & Taylor, 2003). While stereotypes are cognitive beliefs about attributes of members of another group (Hilton & von Hippel, 1996), prejudice includes the expression of negative affect (Brown, 1995). Put another way, stereotypes are part of the ‘cold’, cognitive dimension while prejudice is part of the ‘hot’ affective dimension of intergroup attitudes (Fiske, 1998). Relevant to the present research, Tropp and Pettigrew (2005a) found that intergroup contact (including cross-group friendships) is more strongly related to affective than cognitive dimensions of intergroup attitudes. The authors explained their findings in light of the idea that intergroup contact (and cross-group friendships in particular) breeds liking and generates affective ties (Pettigrew, 1997) while it may leave stereotypes intact. This implies that one should use affective rather than cognitive measures of intergroup attitudes when one is interested in predictors of cross-ethnic friendships.

Intergroup attitudes and children’s cross-ethnic friendships. Contact researchers have generally focused on intergroup attitudes as an outcome variable influenced by contact in general and cross-ethnic friendships in particular and not as a predictor influencing contact behaviour (including friendships). However, both causal directions – cross-ethnic friendships improve intergroup attitudes, and positive intergroup attitudes predict cross-ethnic friendships – are equally probable (cf. Binder et al., 2009; Levin et al., 2003). As this study is about how friendships form, I was only interested in the impact of intergroup attitudes on PSF. Although intergroup attitudes are generally found to be less positive among majority status compared to minority status children (Aboud et al., 2003; Feddes et al., 2009; Verkuyten, 2002) this does not necessarily imply that the effect of intergroup attitudes on PSF should be stronger among majority status children.

Perceptions of Peer Norms

As children move from middle into late childhood inclusion into social groups becomes increasingly important to them (Horn, 2003; Smetana, 2006) and so they become more sensitive towards which types of behaviour are sanctioned by their peers (Abrams, Rutland, & Cameron, 2003). Several studies suggest that the expression of children’s intergroup attitudes is regulated by perceived peer norms (Nesdale, Griffith et al., 2005; Nesdale, Maass et al., 2005; Rutland et al., 2005). However, we know little about how peer norms regulate cross-ethnic friendship formation or PSF (Aboud & Sankar, 2007). On the other hand, several recent lines of research have shed light on how group processes and group

norms affect children's intergroup attitudes and decision-making about intergroup peer relationships (McGlothlin et al., 2008).

Social identity and categorization. A number of studies based on Social Identity Developmental Theory (SIDT; Nesdale, 2004) have demonstrated how ingroup norms regarding inclusion or exclusion of the outgroup influenced the intergroup attitudes of European Australian children (Nesdale, Griffith et al., 2005; Nesdale, Maass et al., 2005). These studies used a minimal group design to manipulate whether children belonged to a group promoting inclusion or exclusion of the outgroup. Children whose ingroup had a norm of exclusion showed explicit dislike of the outgroup, while children in the inclusion norm condition generally liked outgroup members. These studies also varied the ethnicity of the outgroup (same- vs. cross-ethnic). Importantly, the effect of group norms on outgroup liking was not affected by the ethnicity of the outgroup member. In other words, group norms were more important for liking judgments than ethnic group membership. The findings by Nesdale and colleagues (Nesdale, Griffith et al., 2005; Nesdale, Maass et al., 2005) point to the importance of peer group norms on children's liking for outgroup members, suggesting that when ingroup norms favour exclusion of ethnic outgroups, individual children might be less inclined to form cross-ethnic friendships (McGlothlin et al., 2008).

Subjective group dynamics. Research on developmental subjective group dynamics (SGD) has also examined the role of group norms on children's evaluations of group members (Abrams, Rutland, & Cameron, 2003; Abrams, Rutland, Cameron et al., 2003; Abrams, Rutland, Pelletier, & Ferrell, 2009). The developmental SGD model explicitly assumes that children evaluate other peers more on the extent to which they fulfil the norms of the group than on group membership alone as they get older. This idea is based on research with adults on the *black sheep effect* (Marques, Yzerbyt, & Leyens, 1988), which shows that while adults typically favour likeable ingroup over likeable outgroup members, they favour unlikeable outgroup over unlikeable ingroup members. Essentially, developmental SGD assumes that older children become more attentive to individuating information and thus they do not only look at group membership, but also at whether individuals promote ingroup norms when evaluating group members. In line with SIT (Tajfel & Turner, 1979), deviation from group norms is seen as a threat to the cohesion and existence of the group. Therefore older children will prefer ingroup and outgroup members who conform to ingroup norms. Although the ingroup as a whole is still preferred, individual outgroup members endorsing ingroup norms may be favoured over ingroup members who deviate from the norms of the ingroup.

Extended contact vs. loyal member effect. The extended contact hypothesis (Wright et al., 1997) suggests that contact does not always have to be direct to exert its positive effects; mere knowledge of ingroup members having friendships with outgroup members might reduce prejudice. Thus, knowing that ingroup members have friendships with outgroup members might function as a descriptive norm, signalling that it is acceptable to associate with the outgroup. A recent study showed that the impact of extended contact on children's intergroup attitudes were indeed partially mediated by perceived peer norms (R. N. Turner et al., 2008). As discussed above, following the tenets of balance theory (Heider, 1958) extended contact may or may not lead children who experience cross-ethnic friendships vicariously to engage in these friendships themselves. This will depend on the group norms present in the situation. When children perceive group norms about cross-ethnic friendship to be positive chances are high that they may befriend cross-ethnic peers as well. If group norms are perceived to be negative, however, children are more likely to think negatively about the ingroup peer associating with the outgroup (Castelli et al., 2007) and will probably refrain from engaging in cross-ethnic friendship.

A cautionary note about extended friendship effects seems in place here. Although extended contact interventions have proven to be highly successful in reducing majority children's prejudice (L. Cameron & Rutland, 2006; L. Cameron, Rutland, & Brown, 2007; L. Cameron, Rutland, Brown, & Douch, 2006; Liebkind & McAlister, 1999), these studies were all conducted in environments where children had very little opportunity for direct contact with the outgroup. In fact, one of the key advantages of extended contact is seen in its capability to affect prejudice in homogeneous areas where direct contact interventions are not feasible (Wright et al., 1997). In heterogeneous environments, however, extended contact seems less effective compared to direct contact in reducing prejudice (Christ et al., submitted; Feddes et al., 2009). In the only study that has explored extended friendship effects longitudinally with children, Feddes and colleagues (2009) found extended friendships to have no impact on children's intergroup attitudes beyond the effect of direct friendships. Christ et al. (submitted) directly compared the effectiveness of direct and extended contact in homogeneous and heterogeneous contexts. The authors found extended contact to be effective only in homogeneous contexts and explained their findings in light of the well-established idea that direct experience has stronger effects on attitude objects than indirect experience (Fazio & Zanna, 1981).

Thus, while extended contact may promote direct contact, it is unlikely to yield strong effects when children have ample opportunity to make direct experiences with the outgroup. Presumably, this is the case in ethnically heterogeneous schools.

Social reasoning about intergroup peer relationships. Killen and her colleagues (Killen, Lee-Kim, McGlothlin, & Stangor, 2002; Killen & Stangor, 2001) have examined the role of peer groups on children's decision-making about intergroup peer relationships from a social-cognitive domain perspective. In contrast to the approaches discussed above, these researchers focus on the development of children's social and moral reasoning about race-based exclusion from friendship and peer groups rather than measuring norms and friendship choices directly. An advantage of this approach is that the focus on children's reasoning and justifications about exclusion in particular social contexts often reveals ethnic biases that would be hard to detect if measured directly. This is because of social desirability concerns, particularly among older children.

Social-cognitive domain theory (SCDT; Turiel, 1983, 1998; Turiel, Killen, & Helwig, 1987) proposes that social judgment is influenced by the reasoning processes individuals apply to the evaluation of events. According to SCDT, social reasoning occurs in three different domains: moral, social-conventional, and psychological. The moral domain concerns issues of fairness, justice and rights. The social-conventional domain relates to traditions, norms, and rules. It is this domain that is most pertinent to group functioning and group norms. The psychological domain concerns matters of personal choice and autonomy. An impressive amount of research has shown that individuals from all age groups differentiate events along these domains depending on characteristics of the person (e.g., age, gender, ethnicity), the target (e.g., gender, ethnicity), and the social context (e.g., family, friendship, peer group, school) (Smetana, 2006; Tisak, 1995; Turiel, 1998).

Killen et al. (2002) could show that children are willing to justify race-based exclusion in friendship and peer group contexts on the basis of social-conventional reasoning. The authors asked children and adolescents to judge whether exclusion of a Black child from school, friendship, or a music club was right and requested justifications for their judgement. While almost all children judged race-based exclusion as wrong in the school context (based on moral concerns), some participants judged exclusion in the friendship and music club context as okay. The justifications these children gave differed between contexts. While they saw friendship as a matter of personal choice, they appealed to reasons of group functioning and group identity in the music club context. Some participants even referred to stereotypes about different music preferences between African and European Americans. Age differences

were also found in that older children were more likely than younger children to condone race-based exclusion in the friendship and peer group context. This greater acceptance of race-based exclusion among older children due to concerns about group functioning might explain why cross-ethnic friendships decline with age (McGlothlin et al., 2008).

Not many researchers have explored the relation between group norms and friendship decisions among minority group children. A recent study showed that minority children were less willing to apply social-conventional reasoning for race-based exclusion in a sleep-over context than were majority group children (Killen, Henning, Kelly, Crystal, & Ruck, 2007). In other words, minority children were more likely to judge race-based exclusion as wrong on moral grounds (e.g., unfair) than majority children who appealed to social-conventions (e.g., parental discomfort). This finding does not imply, however, that norms are less important to minority children. It merely reflects that majority children are aware of their parent's interracial anxiety, which is likely to be greater among majority than among minority parents (W. G. Stephan & Stephan, 2000). Killen et al. (2007) also found that minority children were more likely to expect that racial exclusion would occur, which implies that minority children are more aware of and sensitive towards issues of prejudice and discrimination.

This is in line with theorising by Quintana (1998), who proposed that increased sensitivity towards prejudice among minority adolescents may lead to greater preference for same-ethnic friends that buffers against the negative impact of discrimination (Quintana & Vera, 1999). Indeed, Quintana (1998) found that Mexican American preadolescents believed that same-ethnic peer groups would cooperate better and feel more comfortable than mixed-ethnic groups. In short, there is no convincing theoretical rationale for why majority and minority children should differ in the degree to which peer group norms are important for friendship decisions.

To sum up, studies inspired by Social Identity Developmental Theory, Subjective Group Dynamics, extended contact effects, and Social-cognitive Domain Theory provide compelling evidence for the increasing importance of group norms with age for the understanding of children's decision-making about cross-ethnic friendships. All these approaches imply that children become more knowledgeable about and sensitive towards which behaviours are sanctioned by the peer group and, consequently, are likely to behave in accordance with these perceived peer norms. Thus, one may expect to find group level differences in the frequency of cross-ethnic friendships depending on the peer norms prevalent in a specific peer group. Yet, the findings by Killen et al. (2002) imply that the degree to which group norms are seen as relevant for personal friendship decisions may also

be expected to vary within groups. In other words, children may differ interindividually, both in the way they perceive peer norms (e.g., in the same classroom) and in the extent to which they base their friendship choices on these perceived norms.

Perceptions of Contact Conditions

The contact hypothesis states that contact between members of different ethnic or racial groups will improve intergroup attitudes of those involved in interpersonal contact and may thus reduce intergroup tensions and discrimination (Allport, 1954; R. M. Williams, 1947). Allport (1954) assumed that mere contact would not be sufficient to reduce prejudice. He postulated that for contact to be successful it should entail four conditions: equal status within the situation, common goals, intergroup cooperation, and authority support. In a meta-analysis on contact effects with adults, Pettigrew and Tropp (2006) provided powerful empirical evidence in support of the contact hypothesis. In contrast to Allport's assumptions, however, they could show that mere contact does reduce prejudice. Nonetheless, Pettigrew and Tropp demonstrated that contact conditions function as a moderator between contact and prejudice. In other words, the more contact resembles the conditions outlined by Allport, the stronger the effects of contact on prejudice are. More recently, a separate meta-analysis on the effects of contact on children's intergroup attitudes confirmed the effectiveness of contact to improve intergroup attitudes among children (Tropp & Prenovost, 2008).

Pettigrew (1998) proposed that cross-group friendships are the optimal form of contact because friendships are likely to fulfil all of Allport's (1954) conditions. The literature on interpersonal relationships indirectly supports these claims. Specifically, research on friendship quality highlights that it is important that friends see each others as equals in their relationship (Hatfield, Utne, & Traupmann, 1979), and that the friendship is characterized by cooperation and not competition (Schneider et al., 2007). Also, friends who follow common goals in their friendship are more likely to remain friends than friends who pursue different goals in their relationship (Oswald & Krappmann, 1984). Moreover, parental authority plays a role in whom children and adolescents select and maintain as friends (Rubin et al., 2006). Thus, children who perceive their parents to approve of cross-ethnic friends will be more likely to select and maintain cross-ethnic friends (Edmonds & Killen, 2009). Pettigrew contended that if contact met all of Allport's conditions friendship potential would be established. Support for the effectiveness of structured contact comes from research on school desegregation that is supposed to foster equal status and authority support (for a review see Schofield & Eurich-Fulcer, 2001) and on contact interventions designed to promote common

goals and cooperation (Aronson & Patnoe, 1997; Johnson & Johnson, 2000; Slavin & Cooper, 1999).

Although intergroup contact seems to be very effective in improving intergroup attitudes among majority group members, a growing number of studies conducted with adults (Tropp, 2007; Tropp & Pettigrew, 2005b), children (Aboud et al., 2003; Feddes et al., 2009; Tropp & Prenovost, 2008), and adolescents (Binder et al., 2009; Bratt, 2008) indicate that intergroup contact is less effective in improving intergroup attitudes among minority group members. Explanations for the psychological asymmetry between the two groups have focused on differences in social status. High-status majority group members tend to think less of themselves in terms of group membership (Tropp & Pettigrew, 2005b) and may be more concerned with avoiding displaying counternormative discriminatory behaviour against minority members (Binder et al., 2009).

In contrast, low-status minority group members tend to be well aware of their group's lower status and are therefore more concerned about being discriminated against (Crocker, Major, & Steele, 1998). In fact, Tropp (2007) found perceived racial discrimination to moderate the relationship between contact and attitudes among African American, but not European American, adults. Thus, majority and minority members often have differing expectations regarding intergroup interactions (Devine, Evett, & Vasquez-Suson, 1996; Shelton, Richeson, & Vorauer, 2006) and may experience the same contact situation quite differently (John Dixon et al., 2005; Shelton, 2003). This implies that Allport's (1954) optimal contact conditions may be more difficult to fulfil for minority members who may be less convinced than majority members that these conditions are met (Feddes et al., 2009).

Bratt (2008) has offered an interesting alternative explanation for the varying effectiveness of intergroup contact for majority and minority group members. He argues that the vast majority of studies on the relation between contact and attitudes show that minority members have more positive attitudes towards the majority group than vice versa to begin with (Aboud et al., 2003; Binder et al., 2009; Feddes et al., 2009). Since majority members are initially more negative they also have more room to move on the scale than minority members. In other words, group status and (initial) attitude level are confounded. In addition, minority members usually have more contact experiences, and hence, any single contact experience may be less impactful in changing their attitudes. Thus, a more convincing way to show that social status moderates the contact-attitude relationship would be to study two groups that differ in social status but are comparable in terms of initial intergroup attitudes and previous contact experience.

Another limitation of previous studies on intergroup contact is that they have not directly measured the extent to which Allport's (1954) conditions were perceived to be established by the individuals in the contact situation (Molina & Wittig, 2006). As described above, the same contact situation (e.g., school) might be perceived quite differently by children of different ethnic groups and of different social status. There is some research that suggests that the positive effects of optimal contact conditions are less pronounced among minority status children than majority status children (Tropp & Prenovost, 2008). However, this research has not looked into the subjective perception of contact conditions, either. It might be that objectively defined optimal contact conditions do not have such positive effects for minority status children because they do not perceive these contact conditions to be as optimal as majority children do. Also, no previous study has looked at whether perceptions of contact conditions influence the likelihood of engaging in cross-ethnic friendships.

Shared Identity

Perceived similarity is the backbone of children's friendship formation (Rubin et al., 2006). Children select friends who are similar to them on the basis of gender, ethnicity, and activity preferences (Aboud & Mendelson, 1996). Thus, by emphasizing shared characteristics the ethnic divide in friendships might be overcome. What I perceive to share with others also depends on social identity (who belongs to 'us') and these identities are socially constructed and can therefore be de- and re-constructed. The social categorization approaches to intergroup contact make use of this flexibility of social identity. These approaches focus on the issue of generalization of contact experiences. That is, how should contact situations be structured so that the positive experience from interpersonal contact is generalized to the outgroup as a whole and possibly to other outgroups as well? These explanatory attempts were inspired by findings that the positive regard induced by contact with a particular outgroup member may fail to generalize to the group as a whole (for reviews see Hewstone, 1994; Hewstone & Brown, 1986). The reason for this 'failure to generalize' may be that during intergroup contact a shift often occurs from the intergroup to the interpersonal level. In other words, the other person is now seen as a friend or acquaintance and not regarded as a representative of his or her respective social category anymore, a process referred to as subtyping (Rothbart & John, 1985).

Three different approaches emerged that all try to resolve the issue of generalization of intergroup contact effects (Brewer & Miller, 1984; Gaertner, Mann, Murrell, & Dovidio, 1989; Hewstone & Brown, 1986). The *de-categorization* approach (Brewer & Miller, 1984) argues that in intergroup contact situations individuals should think less about themselves and

others in terms of group membership (i.e., reduce intergroup salience) and rather focus on the interpersonal side of the interaction (i.e., increase interpersonal salience). The underlying idea is that ‘decategorized’ contact will lead to greater intragroup *differentiation* (i.e., less favourable views upon the ingroup) and more *personalization* (i.e., greater attention to individual characteristics of self and others). Thus, social categories should become less useful for organizing people’s perceptions and therefore individuals should be less likely to categorize others based on group membership in future intergroup contact encounters. While research on crossed-categorization, where two or more categories overlap (for a review see Crisp & Hewstone, 1999), and contact based on interpersonal friendship (Pettigrew, 1997, 1998; Pettigrew & Tropp, 2006) generally support the model’s assumptions, this approach is fraught with two problems (cf. Brown & Hewstone, 2005).

First, it is not entirely clear whether complete dissolution of existing group boundaries was in fact achieved in the studies supporting the *de-categorization* approach or whether this is even theoretically possible. Second, there is an indication that a minimal level of intergroup salience is needed to avoid subtyping from occurring (Hewstone & Brown, 1986). Moreover, group members, and minority group members in particular, may not be willing to give up their group identities.

Another approach, the *common ingroup identity* model (Gaertner et al., 1989), proposes that intergroup contact is most effective in reducing intergroup bias when both the ingroup and outgroup are *re-categorized* as one superordinate group. In this way, former outgroup members are now seen to share the same group membership than former ingroup members, creating a common ingroup identity. Thus, bias associated with the former outgroup should be eliminated since the outgroup is now seen to be part of the ingroup. Support for this model comes from interventions designed to promote a common ingroup identity that were successful in improving children’s attitudes (L. Cameron et al., 2006) and making children more inclusive in selecting their most preferred playmate (Houlette et al., 2004). However, this approach essentially suffers from the same difficulties as the *de-categorization* approach (Brown & Hewstone, 2005): First, even if *re-categorization* was completely successful, generalization of contact effects on intergroup attitudes towards outgroup members not present in the situation is unlikely. Second, the common ingroup identity model requires minority members to give up their existing group identities in favour of some superordinate identity, which they may not want.

To address these problems, Gaertner, Dovidio, Anastasio, Bachman, and Rust (1993) suggested an alteration of their model, termed the *dual identity model*. Recognizing the

importance of subgroup identities, this model suggests that both subgroup (e.g., ethnic) and superordinate (e.g., national) identities should be made salient during intergroup contact. While research generally supports the model (Gaertner & Dovidio, 2000; Hornsey & Hogg, 2000) some conceptual problems remain. First, the distinction between subgroup and superordinate groups is often fuzzy and they may be even overlapping. For instance, in Germany the term ‘German’ denotes both an ethnic (subordinate) and a national (superordinate) group. Thus, in countries such as Germany with an essentialist ethnic definition of national group membership (Pehrson, Vignoles, & Brown, 2009), a dual identity strategy may not be very useful in reducing intergroup bias. Second, another theoretical approach towards intergroup bias, the ingroup projection model (Mummendey & Wenzel, 1999), makes essentially opposing predictions about the effect of dual identities on intergroup bias. This model assumes that individuals who highly identify with the superordinate group (e.g., European) will project their own subgroup’s characteristics onto the superordinate category and will thus see their subgroup (e.g., German) as being more prototypical for the superordinate group than another subgroup (e.g., Polish). This tendency will lead to intergroup bias as subgroups differing from one’s own are seen as deviant or inferior. An extensive line of research supports the assumptions of the ingroup projection model (for a review see Wenzel, Mummendey, & Waldzus, 2007).

The third approach, the *intergroup contact model* (Brown & Hewstone, 2005; Hewstone & Brown, 1986), argues that at least a minimal level of intergroup salience is necessary if any generalization of intergroup contact effects is desired. This model emphasizes that to create or maintain intergroup salience contact should take place between members that are seen as typical representatives of their groups. One advantage of this model is clearly that it does not require group members to give up or restructure their group identities and should thus face less resistance by minority members. Moreover, a considerable number of studies shows the effectiveness of the intergroup contact model (for a review see Brown & Hewstone, 2005). However, this model also is somewhat problematic. First, heightened intergroup salience may lead to intergroup anxiety (W. G. Stephan & Stephan, 1985), especially on part of majority group members. Intergroup anxiety, in turn, is likely to make intergroup interaction more difficult (Devine et al., 1996) and may motivate individuals to avoid contact altogether (Plant & Devine, 2003).

Second, while it is relatively easy to manipulate intergroup salience in experimental settings and in interventions it is not possible to control whom individuals meet outside these artificial environments. Thus, the intergroup contact model is hard pressed to explain the

powerful effects of intergroup friendships, which are inherently interpersonal in nature, on intergroup attitudes. It is unlikely that individuals select their cross-group friends according to how typical or representative they are for their respective outgroup. Yet, research shows that cross-group friendships are one of the most potent means of improving intergroup attitudes (Pettigrew, 1997, 1998; Pettigrew & Tropp, 2006).

Pettigrew (1998) suggested a way to integrate the three models of intergroup contact by putting them in a sequential order; hence called longitudinal intergroup contact theory. According to Pettigrew, contact should be structured so that it takes place *de-categorized* initially to avoid intergroup anxiety and to allow for affective ties to be generated. Subsequently, subgroup categories should be made salient to permit individual-to-group generalization and eventually a common ingroup identity should be developed to create more inclusive categories. Unfortunately, very little research has explicitly tested this idea. The reasons for this dearth of research may be twofold. First, longitudinal studies on intergroup contact are still rare (Pettigrew, 2008). Second, it may prove difficult to design and implement interventions that follow such a sophisticated sequence (Brown & Hewstone, 2005). Moreover, the theory seems less applicable for the study of unstructured, naturally occurring intergroup contact, as it happens in the classroom.

Nevertheless, certain elements of the social categorization approaches to intergroup contact, such as shared identity, seem useful for studying predictors of cross-ethnic friendship in a field setting. One form of common ingroup identity in a school setting could be the extent to which people identify with their class. If the class is ethnically heterogeneous, identification with that class implies feeling part of one common ingroup despite the diversity of that group. Consequently, children who identify highly with their class should be less prone to PSF. In support of this idea, L. Cameron and colleagues (2006) used an extended contact intervention involving story-reading and found that when the common identity ‘school’ was emphasized, *attitudes* towards different groups improved. However, the relationship between school or class identity and *cross-group friendship* remains to be tested. The advantage of school class identity compared to other common group identities (e.g., national) is that it might be more compatible with other important identities a child may hold such as ethnic or religious identities. Another advantage of school class identity is that it is relatively easy to heighten its salience, thus potentially offering educators and practitioners a valuable tool to encourage cross-group friendships in the classroom.

Social Competence

Social competence might be an outcome of and an important factor in establishing and retaining cross-ethnic friendships (Kawabata & Crick, 2008). This idea is based on the argument that, on the one hand, cross-ethnic friendships may help to decrease cognitive biases and increase sensitivity to other ethnic groups. On the other hand, advanced social competencies (e.g., empathy) might enhance cross-ethnic interactions because highly socially competent children are likely to be more inclusive and less discriminating in their friendship choices (Aboud & Levy, 2000; Kawabata & Crick, 2008).

Empirical evidence for the relation between social competence and cross-ethnic friendships comes from a number of cross-sectional studies. Hunter and Elias (1999) found that high-quality cross-ethnic friendships facilitated social competence in girls but not boys, irrespective of ethnic group membership. Fletcher, Rollins, and Nickerson (2004) showed that for Black children cross-ethnic friendships that extended beyond school were associated with higher social competence. Lease and Blake (2005) assessed Black and White children who were in the numerical majority in their school classes and compared majority children with and without minority friends. Findings indicated that majority children with minority friends displayed more prosocial characteristics than their peers without minority friends. Similarly, Kawabata and Crick (2008) showed that children with cross-ethnic friendships were more likely to be rated as being relationally inclusive and having leadership skills by teachers.

While all these studies show a robust association between cross-ethnic friendships and social competence the causal order of this relationship remains ambiguous. Is social competence needed to initiate cross-ethnic friendships or do cross-ethnic friendships increase social competence? It is also unknown how social competence is linked with stability of cross-ethnic friendships. It is possible that social competence is required to maintain cross-ethnic friendships once established because these friendships may face extra challenges such as peer disapproval and are often weak to begin with (Schneider et al., 2007).

Empathy, the ability to experience the same feelings as those of another person in response to a particular situation (Nesdale, Griffith et al., 2005), is an important form of social competence, a broad concept that also includes cognitive abilities like perspective taking. Empathic children are more likely to engage in prosocial and helping behaviour (Eisenberg et al., 1990) and thus might be more inclined to sympathize with out-group peers and to develop friendships with them (Eisenberg et al., 2009). Specifically, empathic children from the dominant ethnic group might feel compassion or sympathy for ethnic minority children who

are often targets of discrimination and hold lower status in society (Nesdale, Griffith et al., 2005; Verkuyten & Steenhuis, 2005).

Conclusion

In this chapter, I reviewed the literature on children's cross-ethnic friendships and on the factors that may promote or hinder children to engage in or to maintain these friendships. This review showed that cross-ethnic friendships provide important benefits to both ethnic majority and minority children. However, cross-ethnic friendships are less frequent and less stable than same-ethnic friendships and decline with age. A variety of factors govern how children make decisions about friendship. I proposed that six factors are particularly relevant for understanding how children make decisions about cross-ethnic friendship and that may explain variability and stability of friendship choices. These factors are outgroup orientation, intergroup attitudes, perceptions of peer norms, perceptions of contact conditions, shared identity, and social competence. In reviewing this literature, a specific focus was put on how majority and minority status children may differ in the extent to which these predictors are important for their friendship decisions. The present study tested the relevance of these factors for children's friendship choices. In the next section, I will provide an overview of the design, context and research questions of the present study.

*Chapter 3***THE PRESENT STUDY***Purpose and Design*

The purpose of the present study was to investigate the friendship choices of German and Turkish preadolescents entering ethnically heterogeneous secondary schools. The aims of this study were twofold. First, I wanted to chart the trajectories of friendship choices over the course of one school year to see whether students would show preference for same-ethnic friends (PSF) and to explore variability in PSF over time. The aim was to extend previous work by examining five potential predictors of PSF, namely outgroup orientation, peer influence, intergroup attitudes, shared identity, and perceived contact conditions. Second, I examined stability of same- vs. cross-ethnic friendships and looked at whether individual differences in social competence and perceptions of peer norms would predict stability of cross-ethnic friendships. I chose to study preadolescents in their first year of secondary school as I was interested in the development of PSF in a new group, in which most children would not know each other and new friendships were likely to emerge over time. I also focused on preadolescents in their first year in secondary school because previous research suggests that the often reported decline in cross-ethnic friendships emerges in late childhood (Aboud et al., 2003; Lee et al., 2007) and might be affected by the transition to secondary school (Weller, 2007). This study had a three-wave-longitudinal questionnaire design. Questionnaires were administered to all students in the class at the beginning, middle, and end of the school year.

Field Situation

The focus of this study was on German and Turkish preadolescents. Turkish people, with systematic immigration to Germany since the early 1960s, are the largest and most visible ethnic minority group in Germany, representing about 3 % of the overall population (Bundesamt, 2008). However, in the City where this study was conducted almost 7 % of the general population and nearly 13 % of the population under the age of 14 have a Turkish migration background (Landesamt, 2008). Turkish people living in Germany face high levels of discrimination and rejection (Wagner, van Dick, Pettigrew, & Christ, 2003) and hold considerably lower status in terms of education, health, and employment compared to people of German origin (Bundesministerium, 2009). In addition, Turkish children perform worse than their German peers at school (Krohne, Meier, & Tillmann, 2004), which places them at

risk for school-dropout and delinquency (Dishion, Nelson, & Yasui, 2005), and severely limits their employment opportunities. Thus, it can be assumed that Turkish children hold a lower social status position than German children (cf. Feddes et al., 2009).

Objectively, the conditions proposed by Allport (1954) to be conducive to intergroup contact (equal status, common goals, cooperative interdependence, and authority support) were largely very positive in the schools of the present study. All school principals and teachers were committed to promoting multiculturalism and integrating an ethnically diverse student body. This was evident from school curricula stressing acceptance of diversity and tolerance towards different cultural values and from signs in corridors and classrooms promoting fairness and tolerance. In addition, all schools offered Turkish language courses for both first and second language learners and projects that entail cooperative learning methods. Finally, the students in this study all attended the same academic track, which makes it more likely that they held equal status in the contact situation. I note, however, that contact conditions may be interpreted differently across groups differing in social status (Tropp & Prenovost, 2008). This is why I chose to study subjective perceptions of contact conditions rather than assuming that contact conditions were optimal.

Research Questions and Hypotheses

Trajectories of Same-Ethnic Friendship Preference

The major objective of the present study was to examine PSF over the course of one school year. I was specifically interested in the development of PSF in a new group, in which most children would not know each other and new friendships were likely to emerge over time. I predicted that children would show PSF at the beginning of the year. Regarding the trajectory of PSF over time two alternative predictions can be made. Either PSF should increase as cross-ethnic friendships have been shown to decline with age (Aboud et al., 2003; J. A. Graham & Cohen, 1997) and to be less stable relative to same-ethnic friendships (Schneider et al., 2007). Alternatively, PSF could decrease as preadolescents might use ethnicity as a criterion for friendship decisions in the beginning of the year but might use other criteria (e.g., activity preferences) over time as they get to know their classmates better. Indeed, research by McGlothlin and colleagues (Margie et al., 2005; McGlothlin & Killen, 2005; McGlothlin et al., 2005) has shown that children in ethnically diverse schools focus more on similarity in activity interests than on ethnicity when judging friendship potential. Hence, both predictions regarding the trajectory of PSF (i.e., up or down) seemed equally likely.

Concerning predictors of PSF, I predicted that children high in outgroup orientation, peer norms supportive of cross-ethnic friendships, positive intergroup attitudes, perceived contact conditions conducive to inter-ethnic contact, and school class identification would show lower PSF. I further predicted that outgroup orientation would be more predictive of German than Turkish children's PSF. Finally, I predicted that since it takes time to build up a school class identity the effect of school class identity on reducing PSF would increase over time.

Predictors of Cross-Ethnic Friendship Stability

One purpose of this study was to examine the stability of friendships over a 5-month period and to explore individual predictors of cross-ethnic friendship stability. Despite a number of studies showing that cross-ethnic friendships are less stable than same-ethnic friendships (Aboud et al., 2003; Lee et al., 2007; Schneider et al., 2007), little is known about the underlying factors contributing to this difference in stability. Research suggests that social competence influences the stability of cross-ethnic friendships (Eisenberg et al., 2009). However, most studies showing associations between social competence or adjustment and cross-ethnic friendships were cross-sectional and thus the causal order remains ambiguous. Finally, to the best of my knowledge, all studies examining cross-ethnic friendship stability were conducted in North America where the focus is often on racial rather than ethnic groups. Thus, it is unclear whether these results are transferable to the European context where the history of intergroup relations is different from North America (Zick et al., 2008).

I hypothesized that cross-ethnic friendships would be less stable than same-ethnic friendships. I also hypothesized that children with stable cross-ethnic friendships would be higher in empathy and would perceive social norms regarding cross-ethnic friendships to be more positive than children without stable cross-ethnic friends. I further examined whether individual predictors of cross-ethnic friendship stability would differ across ethnic groups. It was not possible, however, to make specific predictions regarding ethnic group differences due to a lack of findings in the literature.

Chapter 4

METHOD

Participants

In total, 269 children completed the first and the second questionnaire, and 245 children completed the third questionnaire. Of these children, 215 children participated in all waves (attrition: 20%). The children who participated were ethnically diverse: 42 % German, 20 % Turkish, and 38 % other or mixed-ethnic background (e.g. Albanian, Polish, Russian, Arabic, etc.)². The percentage of ethnic minority children in the classes ranged from 35 to 70% ($M = 51.88$).

While children from all ethnic groups participated in the study, analyses concentrated on children belonging to the majority group of German and to the minority group of Turkish children because the other groups were quite small and would not make a meaningful unit of analysis. As I was interested in same- and cross-ethnic friendship selection I had to exclude children who did not have at least one ingroup and one outgroup classmate to choose as a friend. I also excluded participants who did not participate at the first measurement point because I was interested in the effect of predictors at the beginning of the school year on outcomes at the end of the school year. Of the resulting sample (106 German, 45 Turkish; 75 boys, 76 girls), 92 children had data for all three waves, 35 had data for only two waves, and 24 had data for only one wave. These children were between 9 and 12 years old ($M = 10.4$, $SD = .62$) at the beginning of the school year.

For the analysis of friendship stability, I only used data from Time 2 and Time 3 because friendships were unlikely to be stable between the beginning and middle or end of the school year. Although 215 children participated in both waves (attrition: 20%), I only examined the data of German ($n = 86$) and Turkish ($n = 39$) students who had at least one reciprocated friend (51.8 % female; mean age: 10.46). The 91 students from other ethnic groups provided data necessary to determine the number of cross-ethnic friends held by German and Turkish students.

² Ethnicity was assessed by asking respondents for their own as well as their parents' ethnicity. To count as German, children had to self-identify as German and both of their parents had to be German. To count as Turkish, children had to self-identify as Turkish and at least one parent had to be Turkish.

Procedure

Data were collected at the beginning (September 2007; Time 1), middle (January 2008; Time 2) and end (June 2008; Time 3) of the school year. The children completed the questionnaires in their classrooms. Questions were matched to gender and the order of questions referring to ethnic groups was counterbalanced, resulting in four versions of the questionnaire. Participants took on average 35 minutes to complete the questionnaire.

Measures

All measures, including instructions, items, and scales are listed in the Appendix. In the Appendix, the measures are presented in original language (German).

Friendship choices

Friendship was assessed using a peer-nomination technique adapted from Aboud et al. (2003). Participants had to rate every same-sex classmate on a five-point scale (1 = *best friend*, 2 = *good friend*, 3 = *OK friend*, 4 = *OK but not really a friend*, and 5 = *don't know very well*). Each participant received a class list that contained a number associated with each name (e.g. "Girl 1: Tina S."). In the questionnaire, they then had to tick the box on the scale under Girl 1, Girl 2, etc. This procedure was necessary because of data protection laws.

To assess PSF, dyads that rated each other as best, good, or OK friends were counted as mutual friends. The numbers of reciprocal same- and cross-ethnic friends were calculated for each child. I used the compositionally invariant odds-ratio, log *OR*, which controls for opportunities present for same- and cross-ethnic contact in classes of varying ethnic composition (Moody, 2001; Rodkin, Wilson, & Ahn, 2007). I calculated log *OR* for each German and Turkish child as follows :

$$\log OR = \log (AD/BC)$$

where A is the number of same-ethnic friends, B is the number of cross-ethnic friends, C is the number of same-ethnic peers with whom the child is not friends, and D is the number of cross-ethnic peers with whom the child is not friends.

This index has the advantage that it is not mechanically dependent on varying presences of ingroup and outgroup peers available across classes. This was important as I wanted to assess the impact of predictor variables on friendship selection controlling for contact opportunity. The index also combines same- and cross-ethnic friendship selection in one variable and approximately follows a normal distribution.

To assess friendship stability, dyads that rated each other as best or good friends were counted as mutual friends. Mutual friends were considered *stable* if they had been friends at T1 and T2, *dropped* if they had been friends at T1 but not at T2, and *added* if they had only been friends at T2.

Outgroup orientation

I measured orientation towards other groups with four items taken from the MEIM scale by Phinney (1992). The items read: 'I like meeting and getting to know people from a different country other than my own', 'I often spend time with people from a different country other than my own', 'I am involved in activities with people from a different country other than my own', and 'I enjoy being around people from a different country other than my own'. The items were scored on a four-point scale ranging from 1 (*no, untrue*) to 4 (*yes, true*). Cronbach's alphas at Times 1, 2, and 3 were .86, .91, and .87 for German children, and .87, .94, and .95 for Turkish children.

Peer norms supportive of cross-ethnic friendships

Perceived peer group norms about cross-ethnic friendships were assessed with four items measuring both perceptions of German and Turkish children's norms (L. Cameron & Rutland, 2008). Children were presented with a group of stick people and a flag of Germany next to them and the instructions read: 'Here is a group of German boys/girls. Imagine what they think about being friends with Turkish boys/girls'. The ethnic labels were printed in bold and the second label had an arrow attached to it pointing to a single stick person next to a Turkish flag.

The children were then asked to assess how many German children would agree with two statements: 'It's a good idea for German boys/girls and Turkish boys/girls to be friends.' and 'I like being friends with Turkish boys/girls'. The same procedure was repeated for the perception of Turkish children's norms. The items were scored on a four-point scale ranging from 1 (= *none*, depicted with an X) to 4 (= *all*, depicted with a large group of stick people). The correlations between perceptions of German and Turkish children's norms items were high (all r s > .60) suggesting that both German and Turkish children perceived German and Turkish children's norms about cross-ethnic friendships to be quite similar (cf. Feddes et al., 2009). Cronbach's alphas at Times 1, 2, and 3 were .69, .85, and .82 for German children, and .82, .82, and .86 for Turkish children.

Intergroup attitudes

Four items adapted from Turner et al. (2007) were used to measure explicit affective attitudes toward the outgroup. The items were: ‘How much do you like Germans/Turks?’, ‘What do you feel towards Germans/Turks?’, ‘How nice are Germans/Turks?’, and ‘How much do you trust Germans/Turks?’. All items, except for the second item, were rated on a five-point scale ranging from 1 (= *not at all*, depicted with a feeling face with a downward position) to 5 (= *very much*, depicted with a feeling face with a large smile position). The scale for the second item ranged from 1 (*very bad*) to 5 (*very good*) using the same smiley faces as anchor points. Cronbach’s alphas at Times 1, 2, and 3 were .91, .89, and .84 for German children, and .93, .81, and .84 for Turkish children.

Perceptions of contact conditions

The extend to which Allport’s (1954) contact conditions were perceived to be established were measured using an abbreviated scale by Molina and Wittig (2006). Each contact condition was measured by two items (*equal treatment*: ‘In this class the teacher is fair to all children no matter what country they are from’, ‘All children in this class are treated equal no matter what country they are from’; *interdependence*: ‘In this class children from different countries all work together for the same things.’, ‘In this class children from different countries work well together on group tasks.’; *acquaintance potential*: ‘In this class I talk to students from different countries only when I have to.’ ‘In this class children from different countries just don’t like being together.’; *authority support*: ‘In this class the teacher encourages children to make friends with children from other countries.’, ‘In this class one is encouraged to be friends with everybody.’).

The two items assessing acquaintance potential were negatively worded and had very low item-total correlations. I therefore used a combined index of the remaining six items measuring equal treatment, interdependence, and institutional support. The items were scored on a four-point scale ranging from 1 (*no, untrue*) to 4 (*yes, true*). Cronbach’s alphas for the scale at Times 1, 2, and 3 were .61, .71, and .69 for German children, and .58, .62, and .81 for Turkish children.

School class identification

I measured identification with the school class with four items adapted from Verkuyten (2002). The items were: ‘How much do you like being part of this class?’, ‘How proud are you to be part of this class?’, ‘How happy are to be part of this class?’, and ‘How glad do you feel about being part of this class?’. Each item was scored on a five-point scale

ranging from ‘not at all’ to ‘very’. Cronbach’s alphas at Times 1, 2, and 3 were .93, .97, and .96 for German children, and .95, .92, and .98 for Turkish children.

Empathy

I measured *empathy* using an eight-item scale by Nesdale, Griffith et al. (2005) with items like ‘It makes me happy when I see another kid win a prize.’ or ‘Seeing a kid who is crying makes me feel like crying.’. The items were scored on a five-point scale ranging from 1 (*not at all*) to 5 (*a lot*). In addition, above each point on the scale was a picture of an animal, with the pictures systematically increasing in size. Cronbach’s alphas at Times 1 and 2 were .78, and .81 for German children, and .87, and .85 for Turkish children.

Analysis

Trajectories of same-ethnic friendship preference

First, I analyzed the number of same-ethnic and cross-ethnic friends over time with a 2 (Participant’s ethnicity: German, Turkish) \times 2 (Ethnicity of peer: same-ethnic, cross-ethnic) \times 3 (Time: beginning, middle, end of the year) analysis of covariance (ANCOVA), using same- and cross-ethnic peers as the repeated variable. The covariate was number of same- and cross-ethnic same-sex classmates available excluding oneself ($M = 3.25$ same-ethnic and 3.02 cross-ethnic). Initially, I also included gender as a between-subjects factor. However, analyses did not show any gender effects so all analyses presented here are collapsed across gender.

Next, I looked at the mean-level changes for all variables at the three time points for German and Turkish children to explore changes over time and differences due to ethnicity. In addition, I also tested all variables for interaction effects of time and ethnicity.

The central goal of this study was to investigate which and how predictors influence PSF over time. I employed Hierarchical Linear Modeling (HLM; Raudenbush & Bryk, 2002) using HLM 6 (Raudenbush, Bryk, & Congdon, 2004) for this task. HLM can be used for repeated measures designs to understand growth and development in outcome variables and to analyze the impact of time-varying predictors on change in the outcome over time. The HLM framework has several advantages over General Linear Modeling when analyzing longitudinal data. First, time can be explicitly incorporated as a factor. Second, multiple covariates can be included in the analysis. Finally, HLM can deal with longitudinal data sets, such as this one, in which there are varying numbers of waves per person. Thus, also data from children who participated at only one or two waves could be included in the analysis. I

decided to model German and Turkish children separately, as preliminary analyses suggested that the two groups followed different growth trajectories in PSF.

In a multilevel model with longitudinal data, Level 1 includes all observations over n points of measurement that are recorded for each person. On Level 2, each person is only included once, and individuals are the unit of analysis. The Level 1 or within-person model estimates the outcome in relation to time and several time-varying predictors. I expressed a linear change model as follows (Singer & Willet, 2003):

$$\text{Log } OR_{it} = \pi_{3i} + \pi_{1i} \text{ Time}_{it} + e_{it}$$

In this equation, $\text{Log } OR_{it}$ represents PSF for individual i at time t . When $\text{Time } 3 = 0$ (time was coded as $\text{Time } 1 = -2$, $\text{Time } 2 = -1$, and $\text{Time } 3 = 0$), π_{3i} represents i 's level of PSF at $\text{Time } 3$; π_{1i} represents i 's rate of change. The residual, e_{it} , represents i 's portion of PSF at time t that is not predicted by time. By centering on $\text{Time } 3$, parameters can be interpreted in relation to the end of the school year. The Level 2 model used the individual growth parameters from the Level 1 model as outcomes and allows testing whether individuals vary in initial status, rate of change, or acceleration, and what predicts variation.

$$\pi_{3i} = \beta_{00} + u_{0i}$$

$$\pi_{1i} = \beta_{10} + u_{1i}$$

One can write the composite model as follows:

$$\text{Log } OR_{it} = \beta_{00} + \beta_{10} \text{ Time}_{it} + (e_{it} + u_{0i} + u_{1i} * \text{Time})$$

The predictor variables outgroup orientation, peer norms, and intergroup attitudes were time-1 centered (Singer & Willet, 2003). This means that I included both Time-1 values as well as the deviation of each subsequent time point from that value into the analysis. Thereby I could get an indication of how PSF was associated with both initial value of a predictor at the beginning of the school year and the increment or decrement, at each subsequent point in time, from that initial value (Singer & Willet, 2003). The predictor variable class identification was grand-mean centered as I was interested in its interaction with time.

Predictors of Cross-Ethnic Friendship Stability

I tested whether cross-ethnic friendships were less stable than same-ethnic friendships using proportions of friends as the dependent variable. The proportions were calculated for each participant by dividing the number of each type of friend (stable, dropped, or added) by the participant's total number of friends (the sum of these three categories). Proportions were calculated separately for same- and cross-ethnic friends. I conducted separate ANOVAs, first comparing proportions of stable and dropped friends, and second comparing proportions of

dropped and added friends. Subsequently, I performed a 2 (participant's ethnicity: German, Turkish) \times 2 (stability: stable, unstable) between-subjects MANCOVA to examine whether preadolescents with stable versus changing affiliations with cross-ethnic friends from T1 to T2 already differed in empathy and peer norms at T1.

Chapter 5

RESULTS

Trajectories of Same-Ethnic Friendship Preference

Preliminary analyses

Panel attrition and comparison of participants. To test whether the final sample consisting of all participants who completed all three questionnaires ($N = 116$) differed from those who completed only the first and/or second questionnaire, I compared participants who completed only the first questionnaire ($N = 35$) with those who completed all three questionnaires ($N = 116$) on all Time 1 variables (PSF, outgroup orientation, peer norms, intergroup attitudes, class identification, and contact conditions). I performed a MANOVA using a 2 (participation: Time 1 vs. all Time points) \times 2 (ethnicity: German vs. Turkish) between participants design. The results suggested no significant effects for participation, $F(6,126) = 0.57, p = .75, \eta_p^2 = .03$, or for the participation \times ethnicity interaction, $F(6,126) = 0.74, p = .62, \eta_p^2 = .03$, on a multivariate level at Time 1. Analysis at the univariate level showed no differences between children who participated at all time points and children who dropped out after Time 1 (all F s < 2.60).

Likewise, I tested the influence of drop out between Time 2 and Time 3 on all variables at Time 2. Using a MANOVA, I compared those who participated at Time 1 and Time 2 ($N = 17$) with those who participated at all three time points ($N = 116$). The MANOVA revealed no significant effects for participation, $F(6,113) = 0.65, p = .69, \eta_p^2 = .03$, or for the participation \times ethnicity interaction, $F(6,113) = 1.30, p = .27, \eta_p^2 = .06$, on a multivariate level at Time 2. Univariate tests also showed no differences between children who dropped out between Time 2 and Time 3 and those who took part at all time points (all F s < 1.80). In sum, these analyses showed no relation between participant dropout at any time point and any of the measured variables.

Number of same-ethnic and cross-ethnic friends over time. The ANCOVA on mutual friends revealed a significant 3-way interaction of Participant's ethnicity \times Ethnicity of peer \times Time, $F(2,87) = 5.33, p < .01, \eta_p^2 = .11$ (see means in Table 1). Pairwise comparisons showed that German children had significantly more same-ethnic friends at the middle compared to the beginning of the school year ($p < .05$) while Turkish children had significantly more cross-ethnic friends at the middle and end compared to the beginning of the year (p s $< .05$).

Further, German children had significantly more same-ethnic than cross-ethnic friends at the middle of the year ($p < .01$) while Turkish children had significantly more same-ethnic than cross-ethnic friends at the beginning of the year ($p < .001$).

In sum, Turkish children showed PSF at the beginning of the year, which decreased over the year mainly because Turkish children increased their number of cross-ethnic friends over time. In contrast, German children only showed PSF at the middle of the year due to a short-lived increase in the number of same-ethnic friends while they did not significantly increase their number of cross-ethnic friends over time.

Table 1

Mean (std error) number of same- and cross-ethnic mutual friends over time, adjusted for number of same-sex classmates available

Participant's ethnicity	Time 1		Time 2		Time 3	
	Same-ethnic	Cross-ethnic	Same-ethnic	Cross-ethnic	Same-ethnic	Cross-ethnic
German	1.74 ^b (.13)	1.48 (.14)	2.14 ^{a,b} (.15)	1.53 ^a (.14)	1.85 (.14)	1.60 (.15)
Turkish	2.29 ^a (.21)	1.03 ^{a,b,c} (.23)	1.83 (.24)	1.60 ^b (.23)	2.08 (.23)	1.66 ^c (.25)

Note. ^aSignificant difference between number of same- and cross-ethnic friends. ^bSignificant difference between Time 1 and Time 2. ^cSignificant difference between Time 1 and Time 3. * $p < .05$, ** $p < .01$.

Changes of means over time. I conducted a descriptive analysis of change for both outcome (PSF) and predictor variables (outgroup orientation, peer norms, intergroup attitudes, class identification, and contact conditions³) with all children I had complete data from. Variables were subjected to a mixed-model ANOVA with time as the within-participants factor and ethnicity as a between-participants factor. The analysis showed a significant change over time, $F(12,76) = 3.58, p < .001, \eta_p^2 = .36$. In addition, a significant main effect of ethnicity was found, $F(6,82) = 9.12, p < .001, \eta_p^2 = .40$, and a significant interaction of time \times ethnicity, $F(12,76) = 2.15, p = .05, \eta_p^2 = .25$. Table 2 displays results from the repeated measures ANOVAs, including all means and standard deviations. Significant main effects of time (as a within-subjects factor) on PSF, outgroup orientation, intergroup attitudes, and contact conditions indicated that these variables varied depending on measurement point. In addition, I found significant mean-level differences between German and Turkish children for peer norms and intergroup attitudes. Turkish children evaluated German children more positively, and perceived more positive peer norms than vice versa. I also found interactions between time and ethnicity for PSF, and intergroup attitudes.

³ Initially empathy was included in these analyses but was subsequently dropped as it showed no significant association with PSF.

Table 2

Means, (Standard Deviations), and Changes over Time and Differences between Groups

Variable	Time 1		Time 2		Time 3		F_{Time} (2,166)	η_p^2	$F_{\text{Ethn.}}$ (1,83)	η_p^2	$F_{\text{Time} \times \text{Ethn}}$ (2,166)	η_p^2
	Ger ($M[SD]$)	Tur ($M[SD]$)	Ger ($M[SD]$)	Tur ($M[SD]$)	Ger ($M[SD]$)	Tur ($M[SD]$)						
PSF	0.23(.68)	0.30 ^{b, d} (.65)	0.33 ^{a, c} (.65)	-0.00 ^{a, b} (.57)	0.13 ^c (.67)	-.08 ^d (.66)	5.00 ^{**}	.05	.167	.02	3.55 [*]	.04
OO	2.85 ^d (.84)	3.00 ^{b, d} (.89)	3.03(.75)	3.39 ^b (.86)	3.15 ^d (.75)	3.33 ^d (.91)	7.62 ^{***}	.08	2.11	.02	0.87	.01
PN	2.53 ^a (.43)	3.18 ^a (.64)	2.60 ^a (.57)	3.19 ^a (.64)	2.64 ^a (.53)	3.03 ^a (.70)	0.49	<.01	26.38 ^{***}	.23	2.31	.03
IA	3.45 ^{a, d} (.97)	4.45 ^a (.55)	3.50 ^{a, c} (.84)	4.43 ^a (.66)	3.98 ^{a, c, d} (.72)	4.49 ^a (.61)	5.39 ^{**}	.06	35.76 ^{***}	.29	3.64 [*]	.04
Class ID	4.08 ^{b, d} (.96)	3.98(1.08)	3.75 ^b (1.12)	3.95(1.04)	3.78 ^d (1.00)	3.82(1.13)	1.95	.02	0.65	<.01	0.71	<.01
CC	3.31(.44)	3.26 ^{b, d} (.52)	3.32(.45)	3.45 ^b (.40)	3.42(.44)	3.56 ^d (.60)	5.24 ^{**}	.06	0.90	.01	1.40	.02

Note. Ger = German; Tur = Turkish; Ethn. = ethnicity; PSF = Preference for same-ethnic friends; OO = Outgroup orientation; PN = Peer norms; IA = Intergroup attitudes; Class ID = Class identification; CC = Contact conditions. ^aSignificant difference between German versus Turkish group.

^bSignificant difference between Time 1 and Time 2. ^cSignificant difference between Time 2 and Time 3. ^dSignificant difference between Time 3 and Time 1. * $p < .05$, ** $p < .01$, *** $p < .001$.

More specifically, the effect of time on PSF was linear, $F(1,87) = 10.86, p < .01, \eta_p^2 = .11$, suggesting that PSF decreased over time. However, this finding was qualified by a time \times ethnicity interaction, $F(1,87) = 3.54, p < .10, \eta_p^2 = .04$. Examination of the means in Table 2 suggested that this trend was only linear for the Turkish children while the German children showed a curvilinear trend. German children's PSF actually increased from the beginning to the middle of the school year (albeit not significantly) and then decreased again from the middle to the end of the school year below the level at the beginning of the school year.

The effect of time on outgroup orientation was linear, $F(1,87) = 10.88, p < .01, \eta_p^2 = .11$, with outgroup orientation increasing over time. Likewise, the effect of time on intergroup attitudes was linear, $F(1,87) = 6.94, p < .05, \eta_p^2 = .07$, but was qualified by a time \times ethnicity interaction, $F(1,87) = 4.99, p < .05, \eta_p^2 = .05$. Inspection of the means suggested that this effect was linear only for the German but not for the Turkish children. While the former showed a significant increase in intergroup attitudes over time the latter did not. The results for contact conditions indicated a linear effect of time, $F(1,87) = 8.75, p < .01, \eta_p^2 = .09$, suggesting that perceived contact conditions improved over time. In general, these preliminary analyses suggested a pattern of change that was different for German and Turkish children.

Cross-sectional correlations over time. The cross-sectional correlations between predictors and outcome are presented in Table 3. For German children, outgroup orientation, peer norms, intergroup attitudes, and contact conditions were negatively correlated with PSF while class identification was not significantly correlated with PSF. It seemed that for intergroup attitudes and contact conditions, the correlation with PSF changed over time. For Turkish children, outgroup orientation (marginally), intergroup attitudes (marginally), and contact conditions were negatively correlated with PSF. Again, class identification was not significantly correlated with PSF and for intergroup attitudes and contact conditions the correlation with PSF seemed to change over time.

Table 3

Cross-Sectional Correlations Between Variables at Time 1, Time 2, and Time 3 for German (above diagonal) and Turkish children (below diagonal).

	Time 1						Time 2						Time 3					
	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
1. PSF	—	-.19 [†]	-.27**	-.27**	.03	-.06	—	-.35**	-.38**	-.32**	-.08	-.26*	—	-.24*	-.24*	.02	.01	-.06
2. OO	.03	—	.35**	.34**	.12	.01	.05	—	.44**	.53**	-.05	.26*	-.32 [†]	—	.50**	.43**	.33**	.31**
3. PN	-.22	.14	—	.46**	.25**	.07	.03	.28 [†]	—	.60**	.06	.22*	-.24	.37*	—	.30**	.23*	.16
4. IA	-.29 [†]	.11	.71**	—	.32**	.12	-.26	.56**	.61**	—	.10	.14	-.09	.10	.38*	—	.26*	.21*
5. Class ID	.16	.10	.00	-.10	—	.13	.02	.11	.14	.19	—	.22*	-.29	.23	.18	.35*	—	.37**
6. CC	-.10	-.12	.25	-.00	-.02	—	-.09	.48**	.37*	.41*	.25	—	-.26*	.57**	.22	.40*	.21	—

Note. [†] $p < .10$, * $p < .05$, ** $p < .01$. PSF = Preference for same-ethnic friends; OO = Outgroup orientation; PN = Peer norms; IA = Intergroup attitudes; Class ID = Class identification; CC = Contact conditions.

Multilevel modelling

To get further insight into the nature of change in PSF over the school year and to answer the question which predictor variables affected PSF over time and how, I used a multilevel regression approach (Singer & Willet, 2003). Time as a factor and the time-varying predictors were included in a Level 1 model and there were no predictors at Level 2⁴. Time-varying predictors were set fixed at Level 2 as I had no reason to suspect random variation within each ethnic group. I also had to set the random effects of time and time² to zero as their variances could not be reliably estimated. Thus, I could not make any inferences about the rate of change or acceleration. The results are presented in Tables 4 and 5 for German and Turkish children, respectively.

A multilevel model for change of preference for same-ethnic friends. First, I fitted an unconditional means model (Model 1). The intercept indicated that the average level of PSF was positive and significantly different from zero across time for German, $b = .21$, $SE = 0.05$, $t(105) = 3.81$, $p < .001$, as well as for Turkish children, $b = .17$, $SE = 0.07$, $t(44) = 2.29$, $p < .05$. The intraclass correlation ($\rho = \pi_{00} / \sigma^2 + \pi_{00}$) suggested that for German children 45% and for Turkish children 37 % of the variance in PSF were attributable to differences among individuals.

I proceeded by testing an unconditional growth model (Model 2) in which I added time (centered at the end of the school year) as a predictor to the model. For German children, the linear trend was not significant, $b = -.03$, $SE = 0.04$, $t(256) = -0.86$, $p = .39$, while for Turkish children it was, $b = -.18$, $SE = 0.06$, $t(110) = -3.16$, $p < .01$. Note that for Turkish children the intercept was not significant after adding the effect of time. This implied that PSF decreased in a linear fashion for Turkish children and they did not show a significant degree of PSF at the end of the school year anymore.

I further tested the quadratic effect of time (time²) on PSF in Model 3. Results showed that this parameter was significant for German children, $b = -.13$, $SE = 0.07$, $t(255) = -1.98$, $p < .05$, suggesting a quadratic relationship between time and PSF. In addition, the intercept

⁴ We initially also tested a model with 3 levels that controlled for differing ethnic proportions between classrooms on level 3. The intraclass correlation suggested that for German children 23% and for Turkish children 29% of the variance in PSF were attributable to differences between classrooms. To control for ethnic proportions we entered both the proportion of German (.27 - .70) and Turkish (.06 - .39) children per class. However, entering these level 3-effects led to very unstable estimates as reflected in large standard errors ($> .70$). As the number of units on level 3 was evidently too small for this sort of analysis we proceeded testing models without controlling for classroom level effects.

was not significant, suggesting that German children's PSF decreased in a curvilinear fashion and was not significant at Time 3 anymore. However, the effect of time² was not significant for Turkish children, $b = .06$, $SE = 0.11$, $t(109) = 0.57$, $p = .57$. Thus, average change in PSF was linear for Turkish children and quadratic for German children (see Figure 1) corresponding to the findings yielded by the analyses of means. In the next models, I moved toward predicting further variability as a function of time-varying predictors to better understand the developmental process of PSF.

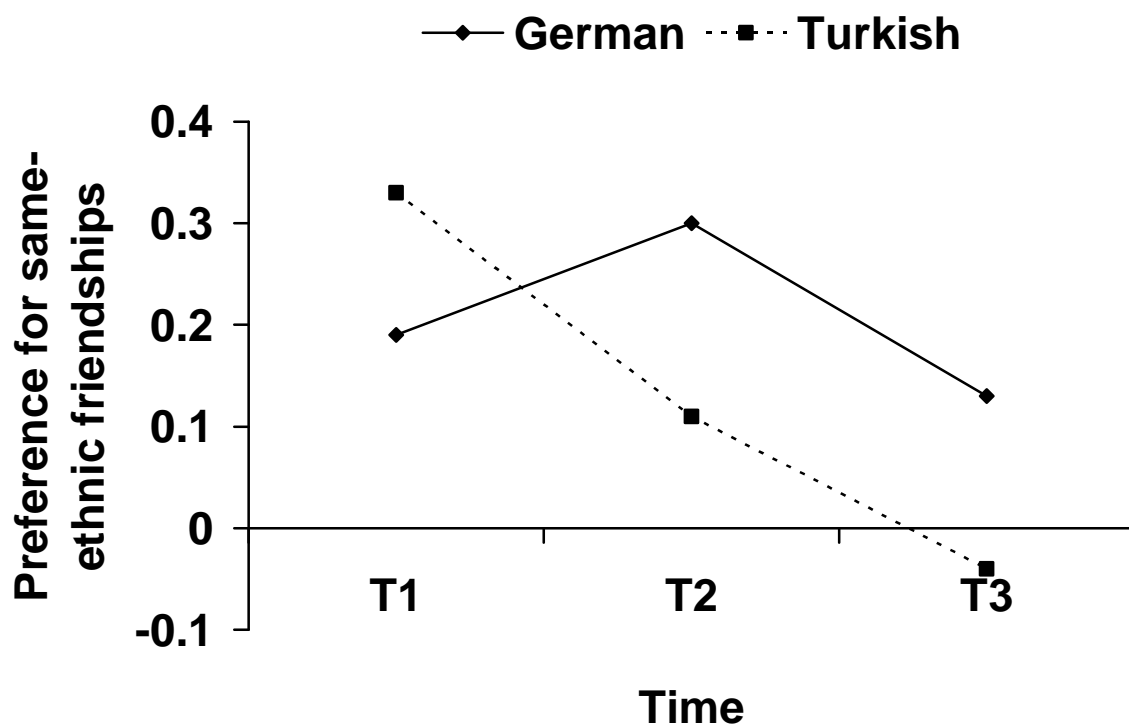


Figure 1. Trajectories of preference for same-ethnic friendships among German and Turkish preadolescents over the course of one school year.

Table 4

Estimates of Fixed and Random Effects From a Series of Multilevel Models for Change in PSF for German Children (N = 106).

	Parameter Estimation (SE)								
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Fixed effects									
Intercept	.21***(.05)	.17*(.07)	.12(.07)	.70***(.18)	.76***(.20)	1.11***(.27)	.12(.07)	.42(.40)	1.25***(.27)
Time		-.03(.04)	-.31*(.14)	-.29*(.14)	-.23(.14)	-.28*(.14)	-.30*(.14)	-.27 [†] (.15)	-.25 [†] (.14)
Time ²			-.13*(.07)	-.13*(.07)	-.10(.12)	-.12 [†] (.07)	-.13 [†] (.07)	-.12 [†] (.07)	-.12 [†] (.07)
OO (T1)				-.19**(.06)					-.07(.06)
OO (T1 Dev.)				-.15*(.06)					-.10 [†] (.06)
IA (T1)					-.18**(.05)				-.07(.05)
IA (T1 Dev.)					-.06(.06)				
PN (T1)						-.38***(.10)			-.24*(.12)
PN (T1 Dev.)						-.22*(.09)			-.16(.10)
Class ID (average)							.06(.07)		
Class ID × Time							.04(.05)		
CC (T1)								-.08(.12)	
CC (T1 Dev.)								-.21*(.08)	-.14 [†] (.08)

(table continues)

	Parameter Estimation (<i>SE</i>)								
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Random effects									
Level 1 r	.25	.25	.24	.24	.23	.24	.24	.24	.24
Level 2 u0	.21***	.21***	.21***	.18***	.19***	.17***	.21***	.19***	.15***
Dev. (df)	488.83(3)	488.10(4)	484.10(5)	474.63(7)	466.54(7)	469.73(7)	480.03(7)	470.13(7)	453.09(11)

Note. Model 1 is an unconditional means model. Models 2 and 3 are unconditional growth models. Model 4 builds on Model 3 by adding the effect of Time 1 outgroup orientation and the deviations thereof. Model 5 builds on Model 3 by adding the effect of Time 1 outgroup evaluations and the deviations thereof. Model 6 builds on Model 3 by adding the effect of Time 1 peer norms and the deviations thereof. Model 7 builds on Model 3 by adding the main effect of class identification and the class identification \times Time interaction. Model 8 builds on Model 3 by adding the effect of Time 1 contact conditions and the deviations thereof. Model 9 is the final model examining simultaneous effects of significant predictors. Full maximum likelihood estimation was used. Time was coded Time 1 = -2, Time 2 = -1, and Time 3 = 0. Level 1 predictors entered in Model 7 are grand-mean centered. [†] $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$. PSF = Preference for same-ethnic friends; OO = Outgroup orientation; PN = Peer norms; IA = Intergroup attitudes; Class ID = Class identification; CC = Contact conditions.

Table 5

Estimates of Fixed and Random Effects From a Series of Multilevel Models for Change in PSF for Turkish Children (N = 45).

	Parameter Estimation (SE)								
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Fixed effects									
Intercept	.17 [*] (.07)	-.04(.10)	-.01(.11)	-.05(.24)	.84 [*] (.38)	.57(.35)	-.03(.09)	.62(.50)	.92 [*] (.34)
Time		-.18 ^{**} (.05)	-.05(.23)	-.17 ^{**} (.05)	-.16 [*] (.05)	-.16 ^{**} (.05)	-.18 ^{**} (.05)	-.16 ^{**} (.05)	-.17 ^{**} (.05)
Time ²			.06(.11)						
OO (T1)				-.02(.07)					
OO (T1 Dev.)				-.03(.06)					
IA (T1)					-.20 [*] (.09)				-.15(.11)
IA (T1 Dev.)					-.01(.10)				
PN (T1)						-.19 [†] (.10)			-.09(.13)
PN (T1 Dev.)						.18 [†] (.10)			.17 [†] (.09)
Class ID (Average)							.10(.05)		.09 [†] (.05)
Class ID × Time							-.10 [*] (.04)		-.09 [*] (.04)
CC (T1)								-.19(.15)	
CC (T1 Dev.)								-.14(.09)	

(table continues)

	Parameter Estimation (SE)								
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Random effects									
Level 1 r	.25	.22	.22	.22	.22	.21	.21	.22	.20
Level 2 u0	.15 ^{***}	.15 ^{***}	.15 ^{***}	.15 ^{***}	.12 ^{***}	.14 ^{***}	.15 ^{***}	.14 ^{***}	.12 ^{***}
Deviance (<i>df</i>)	201.06(3)	191.66(4)	191.27(5)	191.48(6)	186.57(6)	184.27(6)	184.22(6)	183.07(6)	174.25(9)

Note. Model 1 is an unconditional means model. Models 2 and 3 are unconditional growth models. Model 4 builds on Model 3 by adding the effect of Time 1 outgroup orientation and the deviations thereof. Model 5 builds on Model 3 by adding the effect of Time 1 outgroup evaluations and the deviations thereof. Model 6 builds on Model 3 by adding the effect of Time 1 peer norms and the deviations thereof. Model 7 builds on Model 3 by adding the main effect of class identification and the class identification \times Time interaction. Model 8 builds on Model 3 by adding the effect of Time 1 contact conditions and the deviations thereof. Model 9 is the final model examining simultaneous effects of significant predictors. Full maximum likelihood estimation was used. Time was coded Time 1 = -2, Time 2 = -1, and Time 3 = 0. Level 1 predictors entered in Model 7 are grand-mean centered. [†] $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$. PSF = Preference for same-ethnic friends; OO = Outgroup orientation; PN = Peer norms; IA = Intergroup attitudes; Class ID = Class identification; CC = Contact conditions.

Predicting preference for same-ethnic friends. I tested a series of consecutive models to explore whether trajectories of PSF vary over time as a function of the proposed predictors for German and Turkish children. I therefore tested main effects of the predictors on PSF at the end of the school year and, in the case of class identification, also interaction effects with time and time². In Model 4, I included outgroup orientation. The effects of initial value, $b = -.19$, $SE = 0.06$, $t(253) = -3.18$, $p < .01$, and deviation from that value, $b = -.15$, $SE = 0.06$, $t(253) = -2.46$, $p < .05$, were both significant for German children. The direction of the effects indicated that outgroup orientation at the beginning of the school year and increases thereof were associated with lower PSF at the end of the year. For Turkish children, both effects were not significant, $b = -.02$, $SE = 0.07$, $t(108) = -0.34$, $p = .74$; $b = -.03$, $SE = 0.05$, $t(108) = -0.56$, $p = .56$, respectively. Thus, German children who scored high on outgroup orientation and whose outgroup orientation increased over the school year showed lower PSF than their German peers who were low in outgroup orientation and whose outgroup orientation did not increase over the school year. Turkish children's outgroup orientation did not influence their PSF.

In Model 5, I tested the effect of intergroup attitudes. The results showed that intergroup attitudes at the beginning of the year were significantly associated with PSF over time for both German, $b = -.18$, $SE = 0.05$, $t(251) = -3.55$, $p < .01$, and Turkish children, $b = -.20$, $SE = 0.09$, $t(108) = -2.32$, $p < .05$. The direction of the effects suggested that initial intergroup attitudes were associated with lower PSF at the end of the year. Deviations from initial intergroup attitudes had, however, no significant effect on PSF for either German, $b = -.06$, $SE = 0.06$, $t(251) = -1.07$, $p = .28$, or Turkish children, $b = -.01$, $SE = 0.10$, $t(108) = -0.10$, $p = .92$. Thus, for both groups initial values in intergroup attitudes seemed important in determining the trajectory of PSF while changes in intergroup attitudes over the school year had no measurable impact. So regardless of group status, children with more positive intergroup attitudes at the beginning of the school year showed less PSF at the end of the school year compared to children with less positive intergroup attitudes.

In Model 6, I tested the effect of peer norms. For German children, initial peer norms, $b = -.38$, $SE = 0.10$, $t(253) = -3.65$, $p < .01$, and changes in norms at subsequent time points, $b = -.22$, $SE = 0.09$, $t(253) = -2.62$, $p < .05$, had significant effects. The directions of the effects indicated that initial peer norms and subsequent increments in peer norms were associated with lower PSF at Time 3. That is, German children high in initially perceived positive peer norms about cross-ethnic friendships and whose perceived peer norms increased over the school year showed less PSF at the end of the school year. For Turkish children, initial peer

norms, $b = -.19$, $SE = 0.10$, $t(108) = -1.83$, $p = .07$, and change in peer norms, $b = .18$, $SE = 0.10$, $t(108) = -1.82$, $p = .07$, had marginally significant effects. The direction of the effects suggested that Time 1 peer norms and subsequent decrements in peer norms were associated with lower PSF over time. Although the effects were not significant, the effects suggested that Turkish children high in peer norms and whose norms decreased over the school year showed less PSF at the end of the school year.

In Model 7, I tested whether class identification was on average related to PSF and whether the effect of class identification would increase over time. For German children, class identification had no significant main effect, $b = .06$, $SE = 0.07$, $t(252) = 0.93$, $p = .35$, and the time \times class identification interaction was also not significant, $b = .04$, $SE = 0.05$, $t(252) = 0.85$, $p = .39$. To further explore a possible interaction with time, I also included the quadratic effect of time (Model not shown) but the time \times class identification, $b = .19$, $SE = 0.12$, $t(251) = 1.55$, $p = .12$ as well as the time² \times class identification interaction, $b = .07$, $SE = 0.06$, $t(251) = 1.28$, $p = .20$, remained not significant. For Turkish children, the main effect of class identification was not significant, $b = -.10$, $SE = 0.07$, $t(107) = -1.26$, $p = .21$. However, the time \times class identification interaction was significant, $b = -.10$, $SE = 0.04$, $t(107) = -2.26$, $p < .05$. This finding indicated that for Turkish children the effect of class identification on PSF became more pronounced over time. As shown in Figure 2, Turkish children who were above average in class identification started to show less PSF between the middle and the end of the school year.

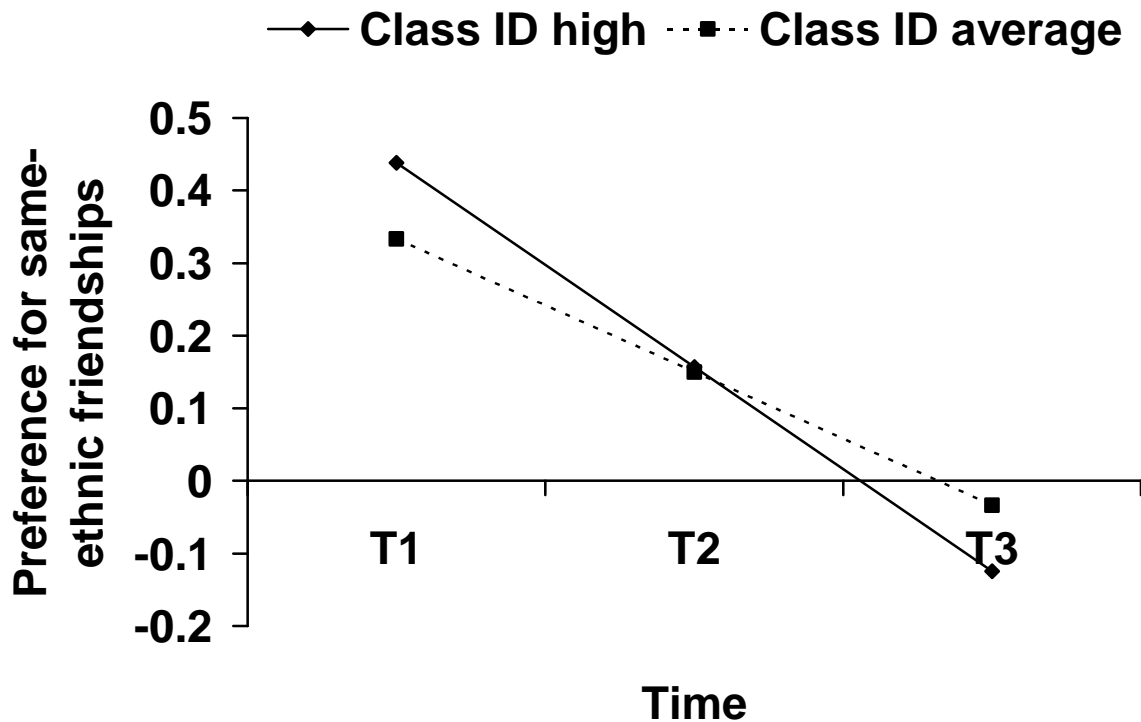


Figure 2. Effects of class identification and time on preference for same-ethnic friends for Turkish children. Class ID = Class identification; T1 = Time 1; T2 = Time 2; T3 = Time 3.

Next, I tested whether initially perceived contact conditions and subsequent changes in these perceptions would impact on PSF (Model 8). For German children, initial contact conditions had no significant effect, $b = -.08$, $SE = 0.12$, $t(249) = -0.69$, $p = .49$, but subsequent changes in contact conditions had a significant negative effect on PSF, $b = -.21$, $SE = 0.08$, $t(249) = -2.51$, $p < .05$. These results suggested that while initially perceived contact conditions had no impact on PSF, subsequent increases in contact conditions were associated with lower PSF at the end of the year. For Turkish children, neither initial contact conditions, $b = -.19$, $SE = 0.15$, $t(105) = -1.29$, $p = .20$, nor changes thereof had any significant impact, $b = -.14$, $SE = 0.09$, $t(105) = -1.43$, $p = .16$.

Finally, I included the significant effects from the previous models into one model to investigate their simultaneous effects (Model 9). It is important to note that some predictors were moderately to highly intercorrelated (e.g., peer norms and intergroup attitudes) so that their genuine impact on PSF could not be clearly identified. For German children, only the effect of initial peer norms reached conventional levels of significance, $b = -.24$, $SE = 0.12$, $t(245) = -2.04$, $p < .05$, when controlling for the effects of outgroup orientation, intergroup attitudes, and contact conditions. For Turkish children, only the time \times class identification

interaction remained significant, $b = -.09$, $SE = 0.04$, $t(104) = -2.10$, $p < .05$, when controlling for the effects of intergroup attitudes, and peer norms.

In sum, the results of this study demonstrated considerable variability in change of PSF over time among German and Turkish children. PSF did not increase over the school year but decreased among both German and Turkish children. When the predictors were considered individually, outgroup orientation, intergroup attitudes, peer norms, and perceived contact conditions helped explain observed variability among German children. Among Turkish children, intergroup attitudes, peer norms, and the time-varying effect of class identification explained variance in PSF. When all predictors were tested together, only initial peer norms predicted reduction in German children's PSF while for Turkish children only class identification became more important over time in predicting a reduction in PSF.

Predictors of Cross-Ethnic Friendship Stability

Stability of cross-ethnic friendships

A 2 (participant's ethnicity) \times 2 (ethnicity of friend) \times 2 (stability: stable, dropped) mixed design ANOVA revealed a significant friend's ethnicity \times stability interaction, $F(1, 59) = 4.07$, $p < .05$ ⁵. Simple effects analyses indicated that cross-ethnic friends were less stable than same-ethnic friends ($M_s = .22$ vs. $.38$, $p < .05$). Although the number of dropped cross-ethnic friends was higher than the number of dropped same-ethnic friends (see Table 6), this difference was not significant. The second ANOVA comparing dropped and added friends yielded no significant friend's ethnicity \times stability interaction. Although more cross-ethnic friends than same-ethnic friends were added this difference was not significant. Thus, cross-ethnic friendships were less stable than same-ethnic friendships.

Table 6

Mean proportion (SD) of children's stable, dropped, and added same- and cross-ethnic friends.

	Stable	Dropped	Added
<i>Mutual close friends</i>			
Same-ethnic	.38 (.44)	.30 (.43)	.32 (.40)
Cross-ethnic	.22 (.34)	.40 (.40)	.39 (.41)

⁵ Again, gender had been included initially as a factor but as no gender effects were found, results are presented collapsed across gender.

T1 predictors of stability and change in preadolescents' affiliation with cross-ethnic friends

The MANCOVA on T1 predictors of friendship stability revealed the following results. Using Pillai's criterion, the combined dependent variables (empathy and peer norms⁶) were significantly related to ethnicity, $F(2, 83) = 4.14, p < .05$. Univariate analyses showed that German preadolescents had significantly less positive peer norms at T1 than Turkish preadolescents, $F(1, 84) = 8.37, p < .05$. There was a marginally significant multivariate ethnicity \times stability interaction, $F(2, 83) = 2.48, p = .09$. Univariate analyses indicated that friendship stability had a significant univariate main effect on German preadolescents' empathy at T1, $F(1, 84) = 4.78, p < .05, \eta = .05$, and on their peer norms at T1, $F(1, 84) = 4.83, p < .05, \eta = .05$. There were no significant effects of friendship stability on Turkish preadolescents' empathy or peer norms at T1. The observed means of empathy and peer norms at T1 are presented separately for German and Turkish preadolescents and for preadolescents with stable versus changing cross-ethnic friendships in Table 7.

I repeated the same analyses using stability of same-ethnic friendships as factor to verify that the effect of friendship stability on empathy and peer norms at T1 were unique to cross-ethnic friendships. Consistent with this notion, I found no significant main effects or interactions of same-ethnic friendship stability at the multivariate or univariate level. Thus, German preadolescents with stable cross-ethnic friendships scored higher on empathy and peer norms than German preadolescents whose cross-ethnic friendships dissolved between T1 and T2.

⁶ Initial analyses had also included the other predictor variables (outgroup orientation, intergroup attitudes, perceived contact conditions, and school class identification). However, none of these other predictors had shown any significant relation with cross-ethnic friendship stability and were therefore dropped from further analysis.

Table 7

Means (SD), and post-hoc observed mean comparison results for effects of cross-ethnic friendship stability on German and Turkish preadolescents' empathy and peer norms at T1.

Dependent Variable	Participant's ethnicity	Friendships stability	
		Stable	Unstable
Empathy at T1	German	3.70 (.58)	3.24 (.77)
	Turkish	3.55 ^a (.85)	3.50 ^a (.90)
Peer Norms at T1	German	2.94 (.55)	2.61 (.47)
	Turkish	3.04 ^a (.59)	3.21 ^a (.60)

Note. Means with the same letter in superscript are not significantly different.

Chapter 6

DISCUSSION

This chapter provides a discussion of the present findings, the limitations of the present study, and its methodological, and practical implications. It further offers suggestions for future research and a conclusion.

Change in preference for same-ethnic friends and its predictors

Several findings from this study are noteworthy and extend previous work on the formation of cross-ethnic friendships among children. First, I found a decrease in PSF over time. Second, PSF followed different trajectories for German and Turkish children. Although both groups did not show PSF at the end of the school year, German children showed a curvilinear trend while Turkish children showed a linear trend in PSF. In other words, while PSF decreased among both status groups over time, it decreased at a faster pace among Turkish than among German children. While Turkish children showed strong PSF at the beginning of the year, this preference declined over the year as they increased the number of cross-ethnic friends. In contrast, German children showed significant PSF at the middle of the year caused by a short-lived increase of same-ethnic friends. Finally, I was able to demonstrate that further variability in PSF over time is linked to intergroup attitudes and peer norms for both status groups while outgroup orientation and contact conditions were only predictive of German children's PSF and the time-varying effect of class identification was only predictive of Turkish children's PSF. I will discuss each finding in turn.

The finding that PSF decreases over time is consistent with the idea that children should prefer same- over cross-ethnic friendships only at the beginning of the school year when they lack other useful information to make decisions about friendship. However, this bias should decrease over the school year as children move from unfamiliar to familiar groups and thus other dimensions (e.g., activity preferences) become more important for friendship decisions. This finding thus extends previous work by McGlothlin and colleagues (Margie et al., 2005; McGlothlin & Killen, 2006; McGlothlin et al., 2005) on friendship potential to actually reported mutual friendships. This finding is important as it implies that, especially for minority status children, ethnicity becomes less important as a criterion for friendship as children spend more time in ethnically heterogeneous classes and have more opportunities for personalized contact.

How can this finding be reconciled with the often reported decline of cross-ethnic friendships with age (e.g., Aboud et al., 2003) First, it might be that compared to elementary school the number of cross-ethnic friendships held by secondary school children in my sample was lower. Second, I used a more lenient definition of friendship than is commonly used (cf. Parker & Asher, 1993) that included mutual best, good, and Ok friends. Similar definitions of friendship have been used in the social networks literature (e.g., Baerveldt et al., 2004; Burk, Steglich, & Snijders, 2007). This was necessary because chances of finding mutual best friendships in the beginning of a new school were limited. Thus, it might be that the trajectories of numbers of only best cross-ethnic friendships differed from my more lenient definition of friendships. Similarly, Aboud et al. (2003) found a decline over time in best cross-ethnic friendships but not in best and good cross-ethnic friendships or cross-ethnic interactive companions. Maybe then loose cross-ethnic friendships are more likely to be sustained than close cross-ethnic friendships, as the former require less effort and are likely to be more activity- and school-based than the latter.

One important goal of this study was to identify predictors of PSF and to explore whether these predictors would hold for ethnic majority and minority children. I had predicted that outgroup orientation would be more predictive of German than of Turkish children's PSF. Although it was not possible to make direct comparisons between the two groups, the results seemed to confirm my prediction. Yet, Turkish children did show equally high levels of outgroup orientation as their German peers and cross-sectionally outgroup orientation correlated negatively with PSF at the end of the school year. But outgroup orientation is likely to bear different meanings for ethnic majority and minority members (Phinney et al., 2007). It is possible then that for German children openness toward other national groups and willingness to interact with members of these groups is closely associated with friendships with Turkish children because Turkish people are seen as prototypical for 'foreigners' living in Germany by ethnic Germans (Asbrock et al., 2006). However, for Turkish children openness toward other national groups might not necessarily mean being open to contact with Germans but being open to contact with any other national group, including other minority groups.

For German and Turkish children both initial peer norms and changes thereof were important in predicting PSF over time. While the effect of peer norms was particularly strong for German children, it was marginally significant for Turkish children. This finding is consistent with research that has highlighted the importance of peer norms in determining children's attitudes towards other ethnic groups (Nesdale, Griffith et al., 2005; Nesdale,

Maass et al., 2005), and towards members from the own ingroup who deviate from group norms (Abrams, Rutland, & Cameron, 2003; Abrams, Rutland, Cameron, & Ferrell, 2007; Castelli et al., 2007). Similarly, Killen et al. (2002) found that children used social conventional (i. e., group norms) reasoning when making decisions about whether to exclude someone of another race in a friendship context. However, no previous study has shown that peer norms also influence actual friendship formation (see Aboud & Sankar, 2007 for qualitative evidence).

In line with my predictions, initial intergroup attitudes at the beginning of the school year predicted both German and Turkish children's levels of PSF at the end of the year. Conversely, subsequent changes in intergroup attitudes were not predictive of PSF for either group. How can one explain that changes in intergroup attitudes had no impact on PSF over and above initial values although intergroup attitudes did improve substantially over time in the German sample? It is possible that the answer is connected to the reciprocal relationship between contact and attitudes (Binder et al., 2009; Levin et al., 2003) and the specific context of the study. At the beginning of the year most children were unfamiliar to each other and so prior negative attitudes were likely to play a great role in avoiding cross-ethnic friendships. However, over time cross-ethnic friendships developed and thus contact effects might have come into play and mitigated attitude effects.

I had expected that perceived contact conditions would be equally predictive of German and Turkish children's PSF. This prediction was confirmed for German, but not for Turkish children. However, while not significant, the size of the effects for Turkish children indicated that perceived contact conditions were also important in determining Turkish children's PSF. For German children I found that initially perceived contact conditions did not predict PSF over time while subsequent increases in perceived contact conditions did. It is conceivable that contact conditions were hard to assess for the children at the beginning of the school year and only began to make an impact on PSF at subsequent points in time. Nevertheless, it is an important result that when children perceive contact conditions to become better over time this lowers their PSF. Thus, it might be problematic to merely assume that contact conditions are established in a particular setting when it is evident that children differ interindividually as well as over time in the extent to which they perceive contact conditions within the same situation (i.e., school) (Molina & Wittig, 2006; Molina et al., 2004) and this in turn affects their friendship choices.

Identification with the school class, a form of common ingroup identity, had a time-varying effect on PSF as I had predicted, but only for Turkish children. This finding is

consistent with studies conducted in Portugal that compared the value of the ‘common ingroup identity’ approach in reducing children’s intergroup bias among ethnic majority and minority children (Monteiro, Guerra, & Rebelo, 2008; Studies 3 and 4). These studies showed that, contrary to studies conducted in the US with adults (Dovidio, Gaertner, Niemann, & Snider, 2001), the ‘common ingroup identity’ condition was successful in reducing ethnic minority but not ethnic majority children’s bias. However, Monteiro et al.’s (2008) studies differ from my study as they used an intervention to manipulate social categorization and assess its impact on intergroup attitudes. In contrast, I measured the extent to which children identified with their school class and how this might predict PSF.

To explain why school class identity was only predictive of Turkish children’s PSF it might be useful to consider the different meanings school class identity might hold for majority and minority status groups in Germany. Turkish children were always a minority in the classes compared to German children who more often than not were a numerical majority. In addition, all teachers were German. For Turkish children then school class identity might be closely associated with being in a majority German class and could thus be a proxy for identifying with the German majority group. Conversely, for German children school class identity might not be associated with Turkish children at all since they were most often in the majority and ethnic identity is typically less salient for ethnic majority children compared to ethnic minority children (Phinney et al., 2007).

Stability of cross-ethnic friendships and its predictors

This study confirmed previous findings from North America that cross-ethnic friendships are less stable than same-ethnic friendships (Aboud et al., 2003; Lee et al., 2007; Schneider et al., 2007) in a European context. Importantly, this study went beyond previous research by identifying two individual factors that influence stability of cross-ethnic friendships. At least for German children, empathy and positive peer norms about cross-ethnic friendships had a facilitating role in maintaining cross-ethnic friendships over a five-month-period. Furthermore, the role of empathy and peer norms was specific to the survival of cross-ethnic friendships and had no influence on the stability of same-ethnic friendships.

The finding regarding the role of empathy is consistent with the view that advanced social skills are necessary to reduce prejudice and discrimination, thereby overcoming formidable obstacles to cross-ethnic interaction (Aboud & Levy, 2000). This result was specific to cross-ethnic friendships and only held for German children from the dominant cultural group. Nesdale, Griffith, and colleagues (2005) reported similar findings regarding

the relationship between empathy and outgroup liking. Specifically, they found that empathy predicted liking for different ethnicity but not for same ethnicity members among White Anglo-Australian children (Nesdale, Griffith et al., 2005; Study 1). To explain their finding, the authors suggested that emotional empathy may prompt compassion among majority group children for minority group children because the former are aware of the status differences in society and perceive the latter to enjoy less favorable life circumstances than they do.

The findings of the present study show that empathy might not only increase outgroup liking but can also increase the chances that majority group children keep the cross-ethnic friendships they have. An alternative explanation is that empathic children are more sensitive to societal expectations and thus more motivated to regulate their attitudes and behaviours. Thus, future research should test whether norms mediate the relationship between empathy and the stability of cross-ethnic friendships. Unfortunately, the design of the present study did not allow for such a test.

This study showed that peer norms play an important role in regulating majority group children's friendships with cross-ethnic peers. Thus, one may speculate that the process explaining the relation between friendship stability and peer norms in this study is connected to expectations about peer inclusion and exclusion. In other words, children who do not perceive peer norms to be supportive of cross-ethnic friendships might either avoid these friendships altogether or choose not to maintain them. Further research is needed to clarify the ways in which peer norms regulate friendship decisions.

Integration of Results

How can the findings regarding the trajectory of PSF and its predictors be reconciled with the findings on cross-ethnic friendship stability? At first glance, it seems contradictory that preference for same-ethnic friendships declines over time while cross-ethnic friends were still less stable than same-ethnic friends between the middle and end of the school year. It is important to note, however, that the relation between same- and cross-ethnic friendship choices at any particular point in time that were the focus of the PSF trajectories analysis are not the same as whether a particular friendship between two individuals is likely to survive a five-month period. It is possible that even though preadolescents in this study did not show a marked preference for same-ethnic friends at the end of the year, same-ethnic friendships are more likely to be sustained over time. As other commentators (e.g., Schneider et al., 2007) have noted, the sheer existence of cross-ethnic friendships may not be an accurate gauge of

the ethnic tolerance or integration in a school class. Cross-ethnic friendships are fragile ties that face more challenges than same-ethnic friendships.

Some of these challenges may arise from differences between ethnic groups in the meaning of friendship and the norms and values guiding friendship. A study conducted with adolescents in the Netherlands showed that individuals from collectivistic cultures such as Turkey and Morocco were also more allocentric, meaning that they followed collectivist behaviours and norms (Verkuyten & Masson, 1996). In their study, high allocentrics were more attentive and sensitive to friends, used social and ascribed attributes when describing their friends, had fewer friends but saw their relationship as closer, and endorsed rules about relations with third parties more. In contrast, high idiocentrics (who were mostly of Dutch origin with the Netherlands being considered an individualistic culture) were less sensitive to their friends, used more personal characteristics in describing their friends, talked less intimately with others, and endorsed rules about relations with third parties less.

Thus, cross-ethnic friendships face the extra-burden of transcending the differences between the social behaviours in collectivistic and individualistic cultures (Schneider et al., 2007). Members of collectivistic cultures tend to communicate in more subtle, indirect, and nonexpressive ways than members of individualistic cultures (Bruneau & Ishii, 1988; Hall, 1976). Moreover, members of collectivistic cultures employ less self-disclosure with their friends because they are thought to place greater emphasis on face-saving and on regulated non-intimate self-disclosure (Gudykunst & Ting-Toomey, 1988). Interestingly, intergroup contact researchers have lately placed great emphasis on the role of self-disclosure in mediating the friendship-attitude relationship (R. N. Turner et al., 2007) and reducing intergroup anxiety through cross-ethnic friendship (Page-Gould, Mendoza-Denton, & Tropp, 2008). However, these researchers did not examine friendship stability or whether cultural groups differ in the extent to which they spontaneously express self-disclosure. So it may be that self-disclosure is helpful for reducing prejudice and initiating intergroup interactions among members of individualistic cultures, but not among members of collectivistic cultures.

A further burden for cross-ethnic friendships may be that parents of collectivistic cultures often monitor the social behaviour of their children very closely (Yu & Berryman, 1996). This may pose a challenge to people from collectivistic cultures, which have been shown to rely greatly on the opinions of relatives with regard to the selection of friends (Gudykunst & Ting-Toomey, 1988). Thus, even though studies show that same- and cross-ethnic friendships do not differ in quality (Aboud et al., 2003; Schneider et al., 2007), same-ethnic friendships seem to be characterized by greater closeness (Schneider et al., 2007).

With regard to the present study, the findings show on the positive side that preadolescents entering ethnically heterogeneous secondary school become less focused on ethnicity in their selection of friends over time. At the same time, same-ethnic friendships are still more stable than cross-ethnic friendships. While it maybe desirable from a normative standpoint that cross-ethnic friendships would be as stable as same-ethnic ones, maybe this is a bit much to ask for when considering the obstacles facing cross-ethnic friendships. Also, one should take into account that same-ethnic friendships are important for preserving the beliefs, traditions, and identity of a subgroup within a multicultural society (Schneider et al., 2007). Theories on ethnic identity development stress the vital role that same-ethnic friendships play for ethnic minority members as a means for exploration and to protect themselves against discrimination (e.g., Cross, 1991; Phinney, 1989). Moreover, some researchers have begun to question the value of sustained intimate intergroup contact for minority members' wellbeing altogether. This radical shift of ideas is based on findings that intergroup contact can lead minority members to lower their support for social change, equality and justice (John Dixon, Durrheim, & Tredoux, 2007; Saguy, Tausch, Dovidio, & Pratto, 2009; Wright & Lubensky, 2009).

Thus, the idea that widespread befriending of members of another ethnic group is a marker of the tolerance of a society may be an assimilationist position akin to colour blindness, which seems to do more harm than good to minority members (Plaut, Thomas, & Goren, 2009). Perhaps, same-ethnic friendships fit the vision of a multicultural society better (Schneider et al., 2007). On the other hand, I do not want to suggest that cross-ethnic friendships are necessarily harmful to minority members. Instead, I argue that it is important that individuals can decide from themselves who they want to be friends with. This is only possible, however, if they are not excluded from friendship right away because of their ethnic background. In support of this interpretation, the present results indicate that at the end of the school year both German and Turkish preadolescents were open to cross-ethnic friendships as they did not show a marked preference for same- over cross-ethnic friends anymore.

When one compares the predictors of preference for same-ethnic friends and cross-ethnic friendship stability, three findings stand out. First, empathy was not a predictor of PSF but it did predict whether German preadolescents would keep their cross-ethnic friends over time. Second, perceived peer norms supportive of cross-ethnic friendships predicted both PSF and cross-ethnic friendship stability. Third, factors that predicted PSF like outgroup orientation, intergroup attitudes, perceived contact conditions, and school class identification did not predict cross-ethnic friendship stability. How can one explain these discrepant

findings? As stated above, whether an individual prefers same- over cross-ethnic friends or whether he or she is more likely to keep cross-ethnic friends over time are conceptually two different things. Thus, it is unsurprising that different predictors emerged for both concepts. Also, this study was exploratory in nature and there are no previous comparable studies that have used the same predictors.

Moreover, caution is warranted when comparing the predictors of PSF and cross-ethnic friendship stability as these analyses were conducted with slightly different subsamples. In the case of PSF, only friendships between German and Turkish preadolescents were counted as cross-ethnic friendships. In the analysis of friendship stability, however, also the nominations from other ethnic groups provided data necessary to determine the number of cross-ethnic friends held by German and Turkish students in order to increase the sample size for this analysis. Thus, I will refrain from over-interpreting any differences found for the predictors of PSF and cross-ethnic friendship stability.

Limitations

A limitation of this study was its low sample size. Because the measure of friendship was classroom-based and focused on the two biggest ethnic groups, a number of eligible participants had to be excluded. With more school classes one could have explored the effects of varying levels of ethnic diversity on friendship formation. Moreover, the exclusive focus on German and Turkish children did not entirely reflect the reality of the classrooms since the context was multi-ethnic. However, the other ethnic groups were quite small and would not make a meaningful unit of analysis – either separately or combined. Another limitation was that the Turkish subsample was very small compared to the German subsample and thus issues of differential power arise. For this reason, any group differences found have to be treated with caution. In addition, the sample size and the specific design of the study with a focus on newly formed school classes did not allow comparing the influence of friendships differing in strength. Finally, the exclusive focus on friendships within the school class limits the ability to generalize from these findings to other settings.

Methodological Implications

While this study provided important insights into the ways preadolescents make choices about same- and cross-ethnic friendships, restrictions of the data set required that all analyses were conducted from an individual perspective. Such an approach is limited in several ways. First, as students are nested in school classes, which may differ in ethnic diversity but also in terms of the attitudes and norms held by one's peers, a multilevel

approach that includes not only time and the individual, but also the group would have been desirable. To my knowledge, such an approach has not been pursued in the context of cross-ethnic friendships and could help to explore potentially interesting interaction effects on multiple levels. Second, while reciprocated friendship ratings were used as a dependent variable, only the influence of the individual's level on the predicting variables was analyzed.

However, a truly relational approach to intergroup relations should also incorporate the friend's perspective. Put simply, it takes two to tango. In other words, friendship is a dyadic concept and whether a friendship is initiated or maintained depends on both members of the dyad. Thus, dyadic analyses could take into account not only the individual's but also the friend's level on the predictor variable as well as their interaction. An example for such an approach is the Actor-Partner Interdependence Model (APIM; Kashy & Kenny, 1999; Kenny, 1996), which can also be applied to longitudinal designs (W. L. Cook & Kenny, 2005). T. V. West, Shelton, and Trail (2009) have successfully employed the APIM to demonstrate that in intergroup interactions the partner's interracial anxiety is just as important as the respondent's anxiety in predicting respondents' interest in future interactions. Another advantage of the APIM and other actor-based models of network dynamics is their ability to model the co-evolution of networks and behaviour thereby enabling the researcher to distinguish between selection and influence effects (Snijders, Steglich, & Schweinberger, 2007). Thus, the question whether cross-group friendship improves intergroup attitudes or vice versa could be refined into how much an individual selects friends based on the individual's and partner's attitudes (selection effects) and how much the individual's attitudes change over time in accordance with the friends' attitudes (influence effect).

Finally, although I used a longitudinal design, the employed analysis (HLM) does not allow for direct tests of causal direction (Singer & Willet, 2003). It is possible to combine autoregressive, cross-lagged, and latent growth models to simultaneously answer questions of causal direction, growth, and change over time (e.g., Bollen & Curran, 2004). However, these hybrid models ideally require five waves of data and large sample sizes throughout. Future studies should be designed such that they provide the possibility to simultaneously answer questions about stability and change as well as growth.

Practical Implications

The present findings suggest some practical implications for educators on how to promote cross-ethnic friendships in the school setting. The powerful effect of perceived peer norms as a predictor of PSF and cross-ethnic friendship stability implies that practitioners

should encourage contact that challenges existing norms. This can be achieved through various means. Teachers could for instance point out existing cross-ethnic friendship pairs in the school class as a positive example of harmonious intergroup relations. A way of targeting peer norms more directly could be to use extended contact interventions that work with textbooks featuring friendships between children from different status groups (L. Cameron & Rutland, 2006; L. Cameron et al., 2006; Liebkind & McAlister, 1999). To improve intergroup attitudes of majority status children, schools and the media should do more to challenge negative stereotypes of minority groups commonly held by society. Educators should point out positive role models of successful minority status members who hold high status positions in politics, the media, and the creative industry. Importantly, teachers should not shy away from discussing ethnicity with their pupils and should make their attitudes explicit to the children (Aboud & Doyle, 1996a; Katz, 2003; Tatum, 1997).

The results concerning contact conditions and school class identification are particularly relevant in educational settings as these are factors that can be targeted quite directly through intervention. Numerous intervention programs designed to promote common goals and cooperation have been successfully implemented in the school setting (Aronson & Patnoe, 1997; Johnson & Johnson, 2000; Slavin & Cooper, 1999). For instance, cooperative learning techniques like the jigsaw classroom (Aronson & Patnoe, 1997), are by far one of the most promising tools for educators to promote positive intergroup relations (Aboud & Levy, 2000; C. W. Stephan, Renfro, & Stephan, 2004; Zirkel, 2008). Furthermore, school class identity can be fairly easily manipulated compared with other common identities (e.g., German) by heightening the salience of the school class identity. In addition, school class identity is closely connected to the classroom climate, which is dependent on the relationship between teacher and students and the cohesion among students. Again, multiple intervention programs are available to educators aiming to improve the classroom climate (Zirkel, 2008).

Educators who are interested in promoting lasting cross-ethnic interactions in their school classes should make use of available interventions that facilitate individual social skills like emotional empathy (for reviews see Aboud & Levy, 2000; W. G. Stephan & Finlay, 1999). However, practitioners should also focus on group processes (e.g., peer norms) in order to be successful (Nesdale, Griffith et al., 2005).

Suggestions for Future Research

Future research should include measures regarding children's interpretations of friendship choices. Do children justify why they might not befriend a member of another

ethnic group and how? It would be important to understand more about when and how ethnic group membership plays a role in children's friendship choices. Perhaps more open-ended assessments could shed more light on children's reasoning about friendship choices (cf. Killen et al., 2007). Another interesting topic for future research is whether the present findings would generalize to other types of cross-group friendships, such as religion, which seems to have become a very salient and important group distinction in recent years (Verkuyten, 2007; Verkuyten & Yildiz, 2007).

Also, the role of ethnic diversity and previous intergroup contact for determining children's friendship choices should be studied in more depth. In this study, only students from ethnically heterogeneous schools participated. However, classes and schools varied in ethnic diversity and other settings of the preadolescents' social environment such as home, neighborhood, and sports clubs may also have varied in ethnic diversity. Varying levels of ethnic diversity also mean varying opportunities for intergroup contact. The question then arises whether preadolescents who enter ethnically heterogeneous schools, but come from ethnically homogeneous neighborhoods are less inclined to engage in cross-ethnic friendships because they are less used to members of other ethnic groups and may therefore exhibit intergroup anxiety. A recent study by Edmonds and Killen (2009) seems to suggest that this may be the case. Specifically, Edmonds and Killen found that adolescents who reported low intergroup contact (e.g., having fewer cross-race peers in their schools, neighborhoods, and outside of school) were less likely to engage in cross-race relationships of any kind. However, the specific processes underlying the link between varying levels of contact opportunity, previous contact experience, and actual contact remain unclear and are ripe for further research.

The study by Edmonds and Killen (2009) also points to another under-researched area in the context of cross-group friendships, namely parental influence. These authors found that perception of negative racial attitudes in parents can deter children from willingly engaging in cross-race relationships of all types. However, Edmonds and Killen did not measure parental attitudes directly. Thus, it is possible that children projected their own attitudes as a standard for inferring their parents' attitudes (Aboud & Doyle, 1996b). Studies that have assessed both children's and parents' attitudes and used measures of explicit and implicit prejudice found a relation between parental explicit prejudice and children's implicit prejudice (Sinclair, Dunn, & Lowery, 2005) and between mothers' implicit prejudice and children's explicit prejudice (Castelli et al., 2009). While these studies suggest that parents can influence their children's attitudes in indirect ways they did not look at the influence on cross-ethnic friendships.

Therefore, future studies should measure both children's and parents' attitudes directly to get a better understanding of the ways how parents influence their children's attitudes regarding cross-ethnic friendships both directly and indirectly.

The results of the present study illustrate the importance of the peer group on children's decision-making peer relationships. When children perceive their peers to support cross-ethnic friendships, they are less likely to prefer same- over cross-ethnic friends. Unfortunately, in the present study it was not possible to distinguish between ingroup and outgroup norms as they were very highly correlated. However, previous studies did successfully distinguish between ingroup and outgroup norms (e.g., L. Cameron & Rutland, 2008; R. N. Turner et al., 2008) and this distinction seems relevant as the two forms of norms may operate through different principles. R. N. Turner and colleagues suggested that ingroup norms may work through two mechanisms. The first mechanism, referent informational influence (e.g., Haslam, McGarty, & Turner, 1996), describes how in situations where group membership is salient and self-categorization occurs, other ingroup members are seen as important sources of information about the group's shared consensus on an issue. The second mechanism, how positive ingroup norms may operate, is through reassuring group members that they will not be punished for developing close relationships with the outgroup. According to R. N. Turner et al., outgroup norms also work through two mechanisms. First, they may alleviate negative preconceptions and stereotypes about the outgroup's willingness for intergroup contact. Second, they may work through the reciprocity principle (Dittes, 1959), the tendency to like those whom we perceive to like us. However, these propositions about the different mechanisms of ingroup and outgroup norms remain to be tested.

Moreover, ingroup and outgroup norms may be of differing importance for members of majority and minority status groups. A study by Tropp and Bianchi (2006) illustrates this point. Tropp and Bianchi found that majority group members' interest in intergroup contact was predicted by how much they value ethnic diversity whereas minority group members' interest in intergroup contact was predicted by how much they perceive outgroup members to value diversity. This finding implies that the outgroup's perspective may be more relevant for minority group members who try to fit in and integrate into a receiving society than for majority group members who may focus more on the ingroup's perspective. Indirect support for this interpretation comes from my own experience when collecting data for the present study. The measure of peer norms used in the present study does assess ingroup and outgroup norms separately. While the Turkish and other minority group children seemingly had no problem in filling out the items referring to the outgroup's perspective, German children

repeatedly stated that they did not know what Turkish children would think about cross-ethnic friendships. Whether this lack of knowledge about the outgroup's perspective among German children is due to a lack of contact experience or due to a lack of interest or care for the outgroup's perspective is unclear. Thus, future research should explore the ways in how ingroup and outgroup norms may differentially affect majority and minority status children's decision-making about peer relationships.

Conclusion

To conclude, the present study suggests that when German and Turkish children enter ethnically heterogeneous secondary schools their preference for same-ethnic over cross-ethnic friends decreases over time as they move from previously unfamiliar to familiar groups. This result contrasts with earlier findings that consistently showed a strong preference of same- over cross-ethnic friendships in various contexts and age groups (e.g., Aboud et al., 2003; Boulton & Smith, 1996; Verkuyten, 2001). However, only few studies have followed children's friendship choices longitudinally (e.g., J. A. Graham et al., 1998). Yet, as this study illustrates, the dynamic nature of friendship choices in newly formed groups can only be fully understood with a longitudinal design.

With regard to the main questions of this thesis, I had made two alternative predictions about the trajectory of preference for same-ethnic friends: It should either increase as cross-ethnic friendships have been shown to decline over age or it should decline as children focus on other attributes than ethnicity as they become more familiar with their peers. This study did not lend support to the first hypothesis while it did show support for the second hypothesis. As a caveat, one may add that the second hypothesis was more strongly supported by the results for the Turkish sample while the German preadolescents did not show a strong preference for same-ethnic friends to start with. Thus, in the present study cross-ethnic friendships did not decline over time. Future studies should employ a cohort-sequential design to clarify the developmental trajectory of cross-ethnic friendships among children and to identify the point where the often reported decline of cross-ethnic friendships sets in. Future studies should also study children's friendships before and after the transition from primary to secondary school to see whether their cross-ethnic friendships may become disrupted through the transition (cf. Weller, 2007).

Whilst the findings of the present study implied a general trend towards less preference for same-ethnic friends over time, the predictor variables explained significant individual variation in same-ethnic friendship preference. Preadolescents who displayed a

desire for contact with the other group, had positive attitudes toward the outgroup, perceived their peers to be in favor of cross-ethnic friendships, perceived contact conditions to be supportive, and had a sense of shared identity in their school class were even less likely to prefer same- over cross-ethnic peers as friends. There were, however, group differences across status groups regarding some key predictors of same-ethnic preference, namely desire for and openness to outgroup contact and shared identity. These findings are important as they suggest that practitioners who want to promote cross-ethnic friendships should focus on these factors. Contact conditions and school class identification are particularly apt for intervention purposes as multiple programs are available that target these factors.

While the findings regarding the trajectory of friendship choices were overall very positive the findings on the stability of cross-ethnic friendships were less so. Replicating previous results (Aboud et al., 2003; Lee et al., 2007; Schneider et al., 2007), cross-ethnic friendships were less stable than same-ethnic friendships over a five-month period. Thus, the mere existence of cross-ethnic friendships at a particular point in time is not an accurate gauge of the ethnic tolerance or integration in a school class (Schneider et al., 2007). Nonetheless, this study went some way in explaining why cross-ethnic friendships are less stable by identifying two individual factors that contribute to their stability, namely empathy and peer norms. Still, while it is important to identify factors promoting the stability of cross-ethnic friendships, more research is needed on the reasons why cross-ethnic friendships are less stable compared to same-ethnic friendships. Future studies should employ qualitative methods and a dyadic perspective to explore this difference in stability in greater depth. It would be interesting to see whether the lack of stability in cross-ethnic friendships is really due to something lacking within these friendships (e.g., intimacy or a common understanding based on shared cultural values) or rather due to external pressures from the peer group and perhaps parents.

Altogether these results provide an important contribution to the existing literature on cross-ethnic peer relations and might bring us one step further in understanding under which conditions opportunity for contact may lead to positive and lasting intergroup relations in increasingly diverse school contexts. After all, schools are one of the first places where children get into contact with members of other ethnic groups. It is important that these interactions run smoothly and foster friendship if we want to prevent to end up living in parallel worlds.

REFERENCES

- About, F. E. (1988). *Children and prejudice*. Cambridge, MA: Basil Blackwell.
- About, F. E., & Amato, M. (2001). Developmental and socialization influences on intergroup bias. In R. Brown & S. Gaertner (Eds.), *Blackwell handbook of social psychology: Intergroup processes* (pp. 65-87). Oxford: Blackwell.
- About, F. E., & Doyle, A. B. (1996a). Does talk of race foster prejudice or tolerance in children? *Canadian Journal of Behavioural Science/Revue canadienne des sciences du comportement*, 28, 161-170.
- About, F. E., & Doyle, A. B. (1996b). Parental and peer influences on children's racial attitudes. *International Journal of Intercultural Relations*, 20, 371-383.
- About, F. E., & Levy, S. R. (2000). Interventions to reduce prejudice and discrimination in children and adolescence. In S. Oskamp (Ed.), *Reducing prejudice and discrimination* (pp. 269-294). Mahwah, NJ: Erlbaum.
- About, F. E., & Mendelson, M. J. (1996). Determinants of friendship selection and quality: Developmental perspectives. In W. M. Bukowski, A. F. Newcomb & W. W. Hartup (Eds.), *The company they keep - Friendship in childhood and adolescence* (pp. 87-112). New York: Cambridge University Press.
- About, F. E., Mendelson, M. J., & Purdy, K. T. (2003). Cross-race peer relations and friendship quality. *International Journal of Behavioral Development*, 27, 165-173.
- About, F. E., & Sankar, J. (2007). Friendship and identity in a language-integrated school. *International Journal of Behavioral Development*, 31, 445-453.
- Abrams, D., Rutland, A., & Cameron, L. (2003). The development of subjective group dynamics: Children's judgments of normative and deviant in-group and out-group individuals. *Child Development*, 74, 1840-1856.
- Abrams, D., Rutland, A., Cameron, L., & Ferrell, J. (2007). Older but wiler: In-group accountability and the development of subjective group dynamics. *Developmental Psychology*, 43, 134-148.
- Abrams, D., Rutland, A., Cameron, L., & Marques, J. M. (2003). The development of subjective group dynamics: When in-group bias gets specific. *British Journal of Developmental Psychology*, 21, 155-176.
- Abrams, D., Rutland, A., Pelletier, J., & Ferrell, J. M. (2009). Children's group nous: Understanding and applying peer exclusion within and between groups. *Child Development*, 80, 224-243.

- Adorno, T. W., Frenkel-Brunswik, E., Levinson, D. J., & Sanford, R. N. (1950). *The authoritarian personality*. New York: Harper.
- Allport, G. W. (1954). *The nature of prejudice*. Cambridge, MA: Addison-Wesley.
- Aronson, E., & Patnoe, S. (1997). *The jigsaw classroom: Building cooperation in the classroom*. New York: Longman.
- Asbrock, F., Lemmer, G., Wagner, U., Becker, J., & Koller, J. (2008). Das Gefühl macht den Unterschied. Emotionen gegenüber "Ausländern" in Ost- und Westdeutschland. In W. Heitmeyer (Ed.), *Deutsche Zustände* (Vol. 7, pp. 152-167). Frankfurt: Suhrkamp.
- Asbrock, F., Wagner, U., & Christ, O. (2006). Diskriminierung: Folgen der Feindseligkeit. In W. Heitmeyer (Ed.), *Deutsche Zustände: Folge 4* (pp. 156-175). Frankfurt a. M.: Suhrkamp.
- Augoustinos, M., & Rosewarne, D. L. (2001). Stereotype knowledge and prejudice in children. *British Journal of Developmental Psychology*, 19, 143-156.
- Baerveldt, C., Van Duijn, M. A. J., Vermeij, L., & Van Hemert, D. A. (2004). Ethnic boundaries and personal choice. Assessing the influence of individual inclinations to choose intra-ethnic relationships on pupils' networks. *Social Networks*, 26, 55-74.
- Bandura, A. (1977). *Social learning theory*. Oxford, England: Prentice-Hall.
- Bar-Tal, D., & Teichman, Y. (2005). *Stereotypes and prejudice in conflict: Representations of Arabs in Israeli Jewish society*. New York, NY: Cambridge University Press.
- Baron, A. S., & Banaji, M. R. (2006). The Development of Implicit Attitudes: Evidence of Race Evaluations from Ages 6 and 10 and Adulthood. *Psychological Science*, 17, 53-58.
- Barrett, M., & Davis, S. C. (2008). Applying social identity and self-categorization theories to children's racial, ethnic, national and state identification and attitudes. In S. M. Quintana & C. McKown (Eds.), *Handbook of race, racism, and the developing child* (pp. 72-110). Hoboken, NJ: John Wiley & Sons.
- Bennett, M., Lyons, E., Sani, F., & Barrett, M. (1998). Children's subjective identification with the group and in-group favoritism. *Developmental Psychology*, 34, 902-909.
- Berry, J. W. (1990). Acculturation and adaptation: A general framework. In W. H. Holtzman & T. H. Bornemann (Eds.), *Mental health of immigrants and refugees* (pp. 90-102). Austin: Hogg Foundation for Mental Health.
- Berry, J. W. (1997). Immigration, acculturation, and adaptation. *Applied Psychology: An International Review*, 46, 5-34.

- Berry, J. W., Trimble, J. E., & Olmedo, E. L. (1986). Assessment of acculturation. In W. J. Lonner & J. W. Berry (Eds.), *Field methods in cross-cultural research*. (pp. 291-324). Thousand Oaks, CA: Sage Publications Inc.
- Bettencourt, B. A., Charlton, K., & Kernahan, C. (1997). Numerical representation of groups in cooperative settings: Social orientation effects on ingroup bias. *Journal of Experimental Social Psychology*, 33, 630-659.
- Bettencourt, B. A., Miller, N., & Hume, D. L. (1999). Effects of numerical representation within cooperative settings: Examining the role of salience in in-group favouritism. *British Journal of Social Psychology*, 38, 265-287.
- Bigler, R. S., & Liben, L. S. (2006). A developmental intergroup theory of social stereotypes and prejudice. In R. V. Kail (Ed.), *Advances in child development and behavior* (Vol. 34, pp. 39-89). San Diego: Elsevier.
- Bildungsberichterstattung. (2008). *Bildung in Deutschland 2008: Ein indikatorengestützter Bericht mit einer Analyse zu Übergängen im Anschluss an den Sekundarbereich I*. Retrieved May 4, 2009. from http://www.bildungsbericht.de/daten2008/bb_2008.pdf.
- Binder, J., Zagefka, H., Brown, R., Funke, F., Kessler, T., Mummendey, A., et al. (2009). Does contact reduce prejudice or does prejudice reduce contact? A longitudinal test of the contact hypothesis among majority and minority groups in three European countries. *Journal of Personality and Social Psychology*, 96, 843-856.
- Black-Gutman, D., & Hickson, F. (1996). The relationship between racial attitudes and social-cognitive development in children: An Australian study. *Developmental Psychology*, 32, 448-456.
- Blau, P. M. (1964). *Exchange and power in social life*. New York: Wiley.
- Bollen, K. A., & Curran, P. J. (2004). Autoregressive Latent Trajectory (ALT) Models: A Synthesis of Two Traditions. *Sociological Methods & Research*, 32, 336-383.
- Boulton, M. J., & Smith, P. K. (1996). Liking and peer perceptions among Asian and White British children. *Journal of Social and Personal Relationships*, 13, 163-177.
- Braddock, J. H., & McPartland, J. M. (1987). How minorities continue to be excluded from equal employment opportunities: Research on labor market and institutional barriers. *Journal of Social Issues*, 43, 5-39.
- Bratt, C. (2008). *The varying effectiveness of intergroup contact dependent on group membership: Intergroup friendship among adolescent boys and girls from majority and minority groups*. Paper presented at the EAESP-SPSSI Small Group Meeting on

- „Intergroup contact: Recent advancements in basic and applied research”, Marburg, Germany, August 28-30.
- Brewer, M. B., & Miller, N. (1984). Beyond the contact hypothesis: Theoretical perspectives on desegregation. In N. Miller & M. B. Brewer (Eds.), *Groups in contact: The psychology of desegregation* (pp. 281-302). New York: Academic Press.
- Brown, R. (1995). *Prejudice: Its social psychology*. Malden, MA: Blackwell Publishing.
- Brown, R., & Hewstone, M. (2005). An Integrative Theory of Intergroup Contact. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 37, pp. 255-343). San Diego, CA: Elsevier Academic Press.
- Bruneau, T., & Ishii, S. (1988). Silence and silences in cross-cultural perspective: Japan and the United States. In L. Samovar & R. Porter (Eds.), *Intercultural communication: A reader* (pp. 310-319). Belmont, CA: Wadsworth.
- Bundesamt, S. (2008). Bevölkerung und Erwerbstätigkeit: Bevölkerung mit Migrationshintergrund - Ergebnisse des Mikrozensus 2006. Wiesbaden: Statistisches Bundesamt.
- Bundesministerium, d. I. (2009). *Migrationsbericht des Bundesamtes für Migration und Flüchtlinge im Auftrag der Bundesregierung: Migrationsbericht 2007*. Retrieved May 4, 2009. from http://www.bmi.bund.de/cae/servlet/contentblob/297624/publicationFile/14808/migrationsbericht_2007.pdf.
- Burk, W. J., Steglich, C. E. G., & Snijders, T. A. B. (2007). Beyond dyadic interdependence: Actor-oriented models for co-evolving social networks and individual behaviors. *International Journal of Behavioral Development*, 31, 397-404.
- Byrne, D. (1971). *The attraction paradigm*. New York: Academic Press.
- Cameron, J. A., Alvarez, J. M., Ruble, D. N., & Fuligni, A. J. (2001). Children's lay theories about ingroups and outgroups: Reconceptualizing research on prejudice. *Personality and Social Psychology Review*, 5, 118-128.
- Cameron, L., & Rutland, A. (2006). Extended Contact through Story Reading in School: Reducing Children's Prejudice toward the Disabled. *Journal of Social Issues*, 62, 469-488.
- Cameron, L., & Rutland, A. (2008). An integrative approach to changing children's intergroup attitudes. In S. Levy & M. Killen (Eds.), *Intergroup Attitudes and relations in childhood through adulthood* (pp. 191-203). New York: Oxford University Press.

- Cameron, L., Rutland, A., & Brown, R. (2007). Promoting children's positive intergroup attitudes towards stigmatized groups: Extended contact and multiple classification skills training. *International Journal of Behavioral Development, 31*, 454-466.
- Cameron, L., Rutland, A., Brown, R., & Douch, R. (2006). Changing children's intergroup attitudes toward refugees: Testing different models of extended contact. *Child Development, 77*, 1208-1219.
- Carlson, J. M., & Iovini, J. (1985). The transmission of racial attitudes from fathers to sons: A study of Blacks and Whites. *Adolescence, 20*, 233-237.
- Castelli, L., De Amicis, L., & Sherman, S. J. (2007). The loyal member effect: On the preference for ingroup members who engage in exclusive relations with the ingroup. *Developmental Psychology, 43*, 1347-1359.
- Castelli, L., Zogmaister, C., & Tomelleri, S. (2009). The transmission of racial attitudes within the family. *Developmental Psychology, 45*, 586-591.
- Christ, O., Tausch, N., Hewstone, M., Wagner, U., Hughes, J., & Cairns, E. (submitted). The benefits and limitations of direct and indirect intergroup contact. *Manuscript submitted for publication*.
- Clark, K. B., & Clark, M. P. (1947). Racial identification and preference in Negro children. In T. M. Newcomb & E. L. Hartley (Eds.), *Readings in social psychology* (pp. 169-178). New York: Holt.
- Clark, M. L., & Ayers, M. (1992). Friendship similarity during early adolescence: Gender and racial patterns. *Journal of Psychology: Interdisciplinary and Applied, 126*, 393-405.
- Coenders, M., Gijsberts, M., Hagendoorn, L., & Scheepers, P. (2004). Introduction: Nationalism and exclusionist reactions. In M. Gijsberts, L. Hagendoorn & P. Scheepers (Eds.), *Nationalism and exclusion of migrants: Cross-national comparisons* (pp. 1-25). Aldershot: Ashgate.
- Cook, S. W. (1984). Cooperative interaction in multiethnic contexts. In N. Miller & M. B. Brewer (Eds.), *Groups in contact: The psychology of desegregation* (pp. 155-185). Orlando: Academic Press.
- Cook, W. L., & Kenny, D. A. (2005). The Actor-Partner Interdependence Model: A model of bidirectional effects in developmental studies. *International Journal of Behavioral Development, 29*, 101-109.
- Crick, N. R., & Dodge, K. A. (1994). A review and reformulation of social information-processing mechanisms in children's social adjustment. *Psychological Bulletin, 115*, 74-101.

- Crisp, R. J., & Hewstone, M. (1999). Differential evaluation of crossed category groups: Patterns, processes, and reducing intergroup bias. *Group Processes & Intergroup Relations*, 2, 307-333.
- Crocker, J., Major, B., & Steele, C. (1998). Social stigma. In D. T. Gilbert, S. T. Fiske & G. Lindzey (Eds.), *The handbook of social psychology, Vols. 1 and 2* (4th ed., pp. 504-553). New York, NY: McGraw-Hill.
- Cross, W. E., Jr. (1991). *Shades of black: Diversity in African-American identity*. Philadelphia, PA: Temple University Press.
- Davey, A. (1983). *Learning to be prejudiced: Growing up in multi-ethnic Britain*. London: Edward Arnold.
- Devine, P. G., Evett, S. R., & Vasquez-Suson, K. (1996). Exploring the interpersonal dynamics of intergroup contact. In R. Sorrentino & E. T. Higgins (Eds.), *Handbook of motivation and cognition: The interpersonal context* (Vol. 3, pp. 423-464). New York: Guilford.
- Dishion, T. J., Nelson, S. E., & Yasui, M. (2005). Predicting Early Adolescent Gang Involvement From Middle School Adaptation. *Journal of Clinical Child and Adolescent Psychology*, 34, 62-73.
- Dittes, J. E. (1959). Attractiveness of group as function of self-esteem and acceptance by group. *The Journal of Abnormal and Social Psychology*, 59, 77-82.
- Dixon, J., Durrheim, K., & Tredoux, C. (2005). Beyond the Optimal Contact Strategy : A Reality Check for the Contact Hypothesis. *American Psychologist*, 60, 697-711.
- Dixon, J., Durrheim, K., & Tredoux, C. (2007). Intergroup Contact and Attitudes Toward the Principle and Practice of Racial Equality. *Psychological Science*, 18, 867-872.
- Dovidio, J. F., & Fazio, R. H. (1992). New technologies for the direct and indirect assessment of attitudes. In J. M. Tanur (Ed.), *Questions about questions: Inquiries into the cognitive bases of surveys*. (pp. 204-237). New York, NY: Russell Sage Foundation.
- Dovidio, J. F., Gaertner, S. L., Niemann, Y. F., & Snider, K. (2001). Racial, ethnic, and cultural differences in responding to distinctiveness and discrimination on campus: Stigma and common group identity. *Journal of Social Issues*, 57, 167-188.
- Dovidio, J. F., Kawakami, K., & Gaertner, S. L. (2002). Implicit and explicit prejudice and interracial interaction. *Journal of Personality and Social Psychology*, 82, 62-68.
- Doyle, A. B., & Aboud, F. E. (1995). A longitudinal study of White children's racial prejudice as a social-cognitive development. *Merrill-Palmer Quarterly*, 41, 209-228.

- DuBois, D. L., & Hirsch, B. J. (1990). School and neighborhood friendship patterns of Blacks and Whites in early adolescence. *Child Development*, 61, 524-536.
- Duckitt, J., Wagner, C., du Plessis, I., & Birum, I. (2002). The psychological bases of ideology and prejudice: Testing a dual process model. *Journal of Personality and Social Psychology*, 83, 75-93.
- Dunn, J. (2004). *Children's friendships: The beginnings of intimacy*. Malden, MA: Blackwell Publishing.
- Edmonds, C., & Killen, M. (2009). Do adolescents' perceptions of parental racial attitudes relate to their intergroup contact and cross-race relationships? *Group Processes & Intergroup Relations*, 12, 5-21.
- Eisenberg, N., Fabes, R., Miller, P. A., Shell, R., Shea, C., & May-Plumlee, T. (1990). Preschoolers' vicarious emotional responding and their situational and dispositional prosocial behavior. *Merrill-Palmer Quarterly*, 36, 507-529.
- Eisenberg, N., Sallquist, J., French, D. C., Purwono, U., Suryanti, T. A., & Pidada, S. (2009). The relations of majority-minority group status and having an other-religion friend to Indonesian youths' socioemotional functioning. *Developmental Psychology*, 45, 248-259.
- Ellison, C. G., & Powers, D. A. (1994). The contact hypothesis and racial attitudes among Black Americans. *Social Science Quarterly*, 75, 385-399.
- Esses, V. M., & Dovidio, J. F. (2002). The role of emotions in determining willingness to engage in intergroup contact. *Personality and Social Psychology Bulletin*, 28, 1202-1214.
- Eurostat. (2008). *Europe in figures: Eurostat yearbook 2008*. Retrieved May 5, 2009. from http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-CD-07-001/EN/KS-CD-07-001-EN.PDF.
- Fazio, R. H., & Zanna, M. P. (1981). Direct experience and attitude-behavior consistency. In L. Berkowitz (Ed.), *Advances in Experimental Social Psychology* (Vol. 14, pp. 161-202). New York: Academic Press.
- Feddes, A. R., Noack, P., & Rutland, A. (2009). Direct and extended friendship effects on minority and majority children's interethnic attitudes: A longitudinal study. *Child Development*, 80, 377-390.
- Fishbein, H. D. (2002). *Peer prejudice and discrimination: The origins of prejudice* (2nd ed.). Mahwah, NJ: Lawrence Erlbaum Associates Publishers.

- Fishbein, H. D., & Imai, S. (1993). Preschoolers select playmates on the basis of gender and race. *Journal of Applied Developmental Psychology, 14*, 303-316.
- Fiske, S. T. (1998). Stereotyping, prejudice, and discrimination. In D. T. Gilbert, S. T. Fiske & G. Lindzey (Eds.), *The handbook of social psychology* (Vol. 2, pp. 357-411). New York: McGraw-Hill.
- Fiske, S. T. (2002). What we know about bias and intergroup conflict, the problem of the century. *Current Directions in Psychological Science, 11*, 123-128.
- Fletcher, A. C., Rollins, A., & Nickerson, P. (2004). The Extension of School-Based Inter- and Intra-racial Children's Friendships: Influences on Psychosocial Well-Being. *American Journal of Orthopsychiatry, 74*, 272-285.
- Gaertner, S. L., Dovidio, J., Anastasio, P. A., Bachman, B. A., & Rust, M. C. (1993). The common ingroup identity model: Recategorization and the reduction of intergroup bias. *European Review of Social Psychology, 4*, 1-26.
- Gaertner, S. L., & Dovidio, J. F. (2000). *Reducing intergroup bias: The common ingroup identity model*. New York, NY, US: Psychology Press.
- Gaertner, S. L., Mann, J., Murrell, A., & Dovidio, J. F. (1989). Reducing intergroup bias: The benefits of recategorization. *Journal of Personality and Social Psychology, 57*, 239-249.
- Gleibs, I. (2007). *The times they are a-changing - Identification and intergroup relations throughout a merger: A longitudinal field study*. Unpublished Doctoral Dissertation, University of Jena.
- Gniewosz, B., Noack, P., Wentura, D., & Funke, F. (2008). Adolescents' attitudes towards foreigners: Associations with perceptions of significant others' attitudes depending on sex and age. *Diskurs Kindheits- und Jugendforschung, 3*, 321-337.
- Graham, J. A., & Cohen, R. (1997). Race and sex as factors in children's sociometric ratings and friendship choices. *Social Development, 6*, 355-372.
- Graham, J. A., Cohen, R., Zbikowski, S. M., & Secrist, M. E. (1998). A longitudinal investigation of race and sex as factors in children's classroom friendship choices. *Child Study Journal, 28*, 245-266.
- Graham, S., & Juvonen, J. (1998). Self-blame and peer victimization in middle school: An attributional analysis. *Developmental Psychology, 34*, 587-599.
- Greenwald, A. G., & Banaji, M. R. (1995). Implicit social cognition: Attitudes, self-esteem, and stereotypes. *Psychological Review, 102*, 4-27.

- Greenwald, A. G., McGhee, D. E., & Schwartz, J. L. K. (1998). Measuring individual differences in implicit cognition: The implicit association test. *Journal of Personality and Social Psychology*, 74, 1464-1480.
- Gudykunst, W. B., & Ting-Toomey, S. (1988). *Culture and interpersonal communication*. Newbury Park, CA: Sage.
- Hall, E. T. (1976). *Beyond culture*. New York: Doubleday.
- Hallinan, M. T., & Teixeira, R. A. (1987). Students' interracial friendships: Individual characteristics, structural effects, and racial differences. *American Journal of Education*, 95, 563-583.
- Hallinan, M. T., & Williams, R. A. (1987). The stability of students' interracial friendships. *American Sociological Review*, 52, 653-664.
- Hallinan, M. T., & Williams, R. A. (1990). Students' characteristics and the peer-influence process. *Sociology of Education*, 63, 122-132.
- Hamm, J. V., Brown, B. B., & Heck, D. J. (2005). Bridging the Ethnic Divide: Student and School Characteristics in African American, Asian-descent, Latino, and White Adolescents' Cross-Ethnic Friend Nominations. *Journal of Research on Adolescence*, 15, 21-46.
- Haslam, S. A., McGarty, C., & Turner, J. C. (1996). Salient group membership and persuasion: The role of social identity in the validation of beliefs. In J. L. Nye & A. M. Brown (Eds.), *What is social about social cognition? Research on socially shared cognition in small groups* (pp. 29-56). Thousand Oaks, CA: Sage.
- Hatfield, E., Utne, M. K., & Traupmann, J. (1979). Equity theory and intimate relationships. In R. L. Burgess & T. L. Huston (Eds.), *Social exchange in developing relationships* (pp. 99-133). New York: Academic Press.
- Heider, F. (1958). *The psychology of interpersonal relations*. Hoboken, NJ, US: John Wiley & Sons Inc.
- Hewstone, M. (1994). Revision and change of stereotypic beliefs: In search of the elusive subtyping model. In W. Stroebe & M. Hewstone (Eds.), *European Review of Social Psychology* (pp. 69-109). Chichester, UK: Wiley.
- Hewstone, M., & Brown, R. (1986). Contact is not enough: An intergroup perspective on the 'contact hypothesis.' In M. Hewstone & R. Brown (Eds.), *Contact and conflict in intergroup encounters*. (pp. 1-44). Cambridge, MA: Basil Blackwell.

- Hill, M., Graham, C., Caulfield, C., Ross, N., & Shelton, A. (2007). Inter-ethnic relations among children at school: the perspectives of young people in Scotland. *European Journal of Education, 42*, 267-279.
- Hilton, J. L., & von Hippel, W. (1996). Stereotypes. *Annual Review of Psychology, 47*, 237-271.
- Horn, S. S. (2003). Adolescents' reasoning about exclusion from social groups. *Developmental Psychology, 39*, 71-84.
- Hornsey, M. J., & Hogg, M. A. (2000). Assimilation and diversity: An integrative model of subgroup relations. *Personality and Social Psychology Review, 4*, 143-156.
- Houlette, M. A., Gaertner, S. L., Johnson, K. M., Banker, B. S., Riek, B. M., & Dovidio, J. F. (2004). Developing a more inclusive social identity: An elementary school intervention. *Journal of Social Issues, 60*, 35-55.
- Howes, C., & Wu, F. (1990). Peer interactions and friendships in an ethnically diverse school setting. *Child Development, 61*, 537-541.
- Hunter, L., & Elias, M. J. (1999). Interracial friendships, multicultural sensitivity, and social competence: How are they related? *Journal of Applied Developmental Psychology, 20*, 551-573.
- Hymel, S., Vaillancourt, T., McDougall, P., & Renshaw, P. D. (2002). Peer acceptance and rejection in childhood. In P. K. Smith & C. H. Hart (Eds.), *Blackwell handbook of childhood social development*. (pp. 265-284). Malden, MA: Blackwell Publishing.
- Jackman, M. R., & Crane, M. (1986). 'Some of my best friends are Black . . .': Interracial friendship and Whites' racial attitudes. *Public Opinion Quarterly, 50*, 459-486.
- Jackson, M. F., Barth, J. M., Powell, N., & Lochman, J. E. (2006). Classroom contextual effects of race on children's peer nominations. *Child Development, 77*, 1325-1337.
- Jaspars, J. M., Van de Geer, J. P., Tajfel, H., & Johnson, N. (1972). On the development of national attitudes in children. *European Journal of Social Psychology, 2*, 347-369.
- Johnson, D. W., & Johnson, R. T. (2000). The three Cs of reducing prejudice and discrimination. In S. Oskamp (Ed.), *Reducing prejudice and discrimination*. (pp. 239-268). Mahwah, NJ, US: Lawrence Erlbaum Associates Publishers.
- Kao, G., & Joyner, K. (2004). Do race and ethnicity matter among friends? Activities among interracial, interethnic, and intraethnic adolescent friends. *Sociological Quarterly, 45*, 557-573.
- Karpinski, A., & Hilton, J. L. (2001). Attitudes and the Implicit Association Test. *Journal of Personality and Social Psychology, 81*, 774-788.

- Kaschuba, W. (2007, January 14). Wie Fremde gemacht werden. *Der Tagesspiegel*
Retrieved April 21, 2009, from
<http://www.tagesspiegel.de/meinung/kommentare/art141,2056957>
- Kashy, D. A., & Kenny, D. A. (1999). The analysis of data from dyads and groups. In H. T. Reis & C. M. Judd (Eds.), *Handbook of research methods in social psychology*. New York: Cambridge University Press.
- Katz, P. A. (2003). Racists or tolerant multiculturalists? How do they begin? *American Psychologist*, 58, 897-909.
- Katz, P. A., Sohn, M., & Zalk, S. R. (1975). Perceptual concomitants of racial attitudes in urban grade-school children. *Developmental Psychology*, 11, 135-144.
- Kawabata, Y., & Crick, N. R. (2008). The role of cross-racial/ethnic friendships in social adjustment. *Developmental Psychology*, 44, 1177-1183.
- Kenny, D. A. (1996). Models of non-independence in dyadic research. *Journal of Social and Personal Relationships*, 13, 279-294.
- Kiesner, J., Maass, A., Cadinu, M., & Vallese, I. (2003). Risk factors for ethnic prejudice during early adolescence. *Social Development*, 12, 288-308.
- Killen, M., Henning, A., Kelly, M. C., Crystal, D., & Ruck, M. (2007). Evaluations of Interracial Peer Encounters by Majority and Minority U.S. Children and Adolescents. *International Journal of Behavioral Development*, 31, 491-500.
- Killen, M., Lee-Kim, J., McGlothlin, H., & Stangor, C. (2002). How children and adolescents evaluate gender and racial exclusion. *Monographs of the Society for Research in Child Development*, 67(4), vii.
- Killen, M., & Stangor, C. (2001). Children's social reasoning about inclusion and exclusion in gender and race peer group contexts. *Child Development*, 72, 174-186.
- Kinket, B., & Verkuyten, M. (1999). Intergroup evaluations and social context: A multilevel approach. *European Journal of Social Psychology*, 29, 219-237.
- Krohne, J. A., Meier, U., & Tillmann, K. J. (2004). Sitzenbleiben, Geschlecht und Migration. *Zeitschrift für Pädagogik*, 50, 373-391.
- Kupersmidt, J. B., DeRosier, M. E., & Patterson, C. P. (1995). Similarity as the basis for children's friendships: The roles of sociometric status, aggressive and withdrawn behavior, academic achievement and demographic characteristics. *Journal of Social and Personal Relationships*, 12, 439-452.

- Landesamt, S. (2008). Bevölkerung mit Migrationshintergrund nach Migrationsstatus, Geschlecht und Bezugsstaat (nur Stadt Bremen) (17357). Bremen: Statistisches Landesamt.
- Laurence, J., & Heath, A. (2008). *Predictors of community cohesion: Multi-level modelling of the 2005 Citizenship Survey*. Retrieved May 3, 2009. from <http://www.communities.gov.uk/documents/communities/pdf/681539.pdf>.
- Lease, A. M., & Blake, J. J. (2005). A comparison of majority-race children with and without a minority-race friend. *Social Development, 14*, 20-41.
- Lee, L., Howes, C., & Chamberlain, B. (2007). Ethnic heterogeneity of social networks and cross-ethnic friendships of elementary school boys and girls. *Merrill-Palmer Quarterly, 53*, 325-346.
- Levin, S., van Laar, C., & Sidanius, J. (2003). The effects of ingroup and outgroup friendship on ethnic attitudes in college: A longitudinal study. *Group Processes & Intergroup Relations, 6*, 76-92.
- Liebkind, K., & McAlister, A. L. (1999). Extended contact through peer modelling to promote tolerance in Finland. *European Journal of Social Psychology, 29*, 765-780.
- Maccoby, E. E. (1988). Gender as a social category. *Developmental Psychology, 24*, 755-765.
- Maccoby, E. E., & Jacklin, C. N. (1987). Gender segregation in childhood. In H. W. Reese (Ed.), *Advances in child development and behavior, Vol. 20*. (pp. 239-287). San Diego, CA: Academic Press.
- Margie, N. G., Killen, M., Sinno, S., & McGlothlin, H. (2005). Minority children's intergroup attitudes about peer relationships. *British Journal of Developmental Psychology, 23*, 251-269.
- Marques, J. M., Yzerbyt, V. Y., & Leyens, J.-P. (1988). The 'Black Sheep Effect': Extremity of judgments towards ingroup members as a function of group identification. *European Journal of Social Psychology, 18*, 1-16.
- McGlothlin, H., Edmonds, C., & Killen, M. (2008). Children's and adolescents' decision-making about intergroup peer relationships. In S. Quintana & C. McKown (Eds.), *The handbook of race, racism, and the developing child* (pp. 424-451). Chichester: Wiley.
- McGlothlin, H., & Killen, M. (2005). Children's perceptions of intergroup and intragroup similarity and the role of social experience. *Journal of Applied Developmental Psychology, 26*, 680-698.
- McGlothlin, H., & Killen, M. (2006). Intergroup attitudes of European American children attending ethnically homogeneous schools. *Child Development, 77*, 1375-1386.

- McGlothlin, H., Killen, M., & Edmonds, C. (2005). European-American children's intergroup attitudes about peer relationships. *British Journal of Developmental Psychology*, 23, 227-249.
- McPherson, M., Smith-Lovin, L., & Cook, J. M. (2001). Birds of a feather: Homophily in social networks. *Annual Review of Sociology*, 27, 415-444.
- Milner, D. (1997). Racism and childhood identity. *The Psychologist*, 10, 123-125.
- Molina, L. E., & Wittig, M. A. (2006). Relative importance of contact conditions in explaining prejudice reduction in a classroom context: Separate and equal? *Journal of Social Issues*, 62, 489-509.
- Molina, L. E., Wittig, M. A., & Giang, M. T. (2004). Mutual Acculturation and Social Categorization: A Comparison of Two Perspectives on Intergroup Bias. *Group Processes & Intergroup Relations*, 7, 239-265.
- Monteiro, M. B., Guerra, R., & Rebelo, M. (2008). Reducing prejudice: Common ingroup and dual identity in unequal status intergroup encounters. In S. Demoulin, J.-P. Leyens & J. F. Dovidio (Eds.), *Intergroup misunderstandings: Impact of divergent social realities* (pp. 273-290). New York: Psychology Press.
- Moody, J. (2001). Race, school integration, and friendship segregation in America. *American Journal of Sociology*, 107, 679-716.
- Mummendey, A., & Wenzel, M. (1999). Social discrimination and tolerance in intergroup relations: Reactions to intergroup difference. *Personality and Social Psychology Review*, 3, 158-174.
- Nesdale, D. (2001). The development of prejudice in children. In M. Augoustinos & K. J. Reynolds (Eds.), *Understanding prejudice, racism, and social conflict* (pp. 57-72). London: Sage.
- Nesdale, D. (2004). Social identity processes and children's ethnic prejudice. In M. Bennett & F. Sani (Eds.), *The development of the social self* (pp. 219-245). New York: Psychology Press.
- Nesdale, D., Griffith, J., Durkin, K., & Maass, A. (2005). Empathy, group norms and children's ethnic attitudes. *Journal of Applied Developmental Psychology*, 26, 623-637.
- Nesdale, D., Griffiths, J. A., Durkin, K., & Maass, A. (2007). Effects of group membership, intergroup competition and out-group ethnicity on children's ratings of in-group and out-group similarity and positivity. *British Journal of Developmental Psychology*, 25, 359-373.

- Nesdale, D., Maass, A., Durkin, K., & Griffith, J. (2005). Group norms, threat, and children's racial prejudice. *Child Development, 76*, 652-663.
- Newcomb, T. M. (1961). *The acquaintance process*. Oxford, England: Holt, Rinehart & Winston.
- O'Bryan, M., Fishbein, H. D., & Ritchey, P. N. (2004). Intergenerational Transmission of Prejudice, Sex Role Stereotyping, and Intolerance. *Adolescence, 39*, 407-426.
- Oliner, S. P., & Oliner, P. M. (1988). *The altruistic personality: Rescuers of Jews in Nazi Europe*. New York: Free Press.
- Oswald, H., & Krappmann, L. (1984). Konstanz und Veränderung in den sozialen Beziehungen von Schulkindern. *Zeitschrift für Sozialisationsforschung und Erziehungssoziologie, 4*, 271-286.
- Otten, S., Mummendey, A., Blanz, M., Hogg, M. A., & Abrams, D. (2001). Intergroup discrimination in positive and negative outcome allocations: Impact of stimulus valence, relative group status, and relative group size. In *Intergroup relations: Essential readings*. (pp. 188-204). New York, NY US: Psychology Press.
- Page-Gould, E., Mendoza-Denton, R., & Tropp, L. R. (2008). With a little help from my cross-group friend: Reducing anxiety in intergroup contexts through cross-group friendship. *Journal of Personality and Social Psychology, 95*, 1080-1094.
- Park, B., Ryan, C. S., & Judd, C. M. (1992). Role of meaningful subgroups in explaining differences in perceived variability for in-groups and out-groups. *Journal of Personality and Social Psychology, 63*, 553-567.
- Parker, J. G., & Asher, S. R. (1987). Peer relations and later personal adjustment: Are low-accepted children at risk? *Psychological Bulletin, 102*, 357-389.
- Parker, J. G., & Asher, S. R. (1993). Friendship and friendship quality in middle childhood: Links with peer group acceptance and feelings of loneliness and social dissatisfaction. *Developmental Psychology, 29*, 611-621.
- Pehrson, S., Vignoles, V. L., & Brown, R. (2009). National identification and anti-immigrant prejudice: Individual and contextual effects on national definitions. *Social Psychology Quarterly, 72*, 24-38.
- Pettigrew, T. F. (1997). Generalized intergroup contact effects on prejudice. *Personality and Social Psychology Bulletin, 23*, 173-185.
- Pettigrew, T. F. (1998). Intergroup contact theory. *Annual Review of Psychology, 49*, 65-85.
- Pettigrew, T. F. (1999). Placing authoritarianism in social context. *Politics, Groups, and the Individual, 8*, 5-20.

- Pettigrew, T. F. (2008). Future directions for intergroup contact theory and research. *International Journal of Intercultural Relations*, 32, 187-199.
- Pettigrew, T. F., & Tropp, L. R. (2006). A Meta-Analytic Test of Intergroup Contact Theory. *Journal of Personality and Social Psychology*, 90, 751-783.
- Phinney, J. S. (1989). Stages of ethnic identity development in minority group adolescents. *The Journal of Early Adolescence*, 9, 34-49.
- Phinney, J. S. (1992). The multigroup ethnic identity measure: A new scale for use with diverse groups. *Journal of Adolescent Research*, 7, 156-176.
- Phinney, J. S., Jacoby, B., & Silva, C. (2007). Positive intergroup attitudes: The role of ethnic identity. *International Journal of Behavioral Development*, 31, 478-490.
- Plant, E. A., & Devine, P. G. (2003). The antecedents and implications of interracial anxiety. *Personality and Social Psychology Bulletin*, 29, 790-801.
- Plaut, V. C., Thomas, K. M., & Goren, M. J. (2009). Is multiculturalism or color blindness better for minorities? *Psychological Science*, 20, 444-446.
- Powlisha, K. K., Serbin, L. A., Doyle, A.-B., & White, D. R. (1994). Gender, ethnic, and body type biases: The generality of prejudice in childhood. *Developmental Psychology*, 30, 526-536.
- Putnam, R. (2000). *Bowling alone: The collapse and revival of American community*. London: Simon and Schuster.
- Quillian, L., & Campbell, M. E. (2003). Beyond black and white: The present and future of multiracial friendship segregation. *American Sociological Review*, 68, 540-550.
- Quintana, S. M. (1998). Children's developmental understanding of ethnicity and race. *Applied & Preventive Psychology*, 7, 27-45.
- Quintana, S. M., Aboud, F. E., Chao, R. K., Contreras-Grau, J., Cross, W. E., Jr., Hudley, C., et al. (2006). Race, ethnicity, and culture in child development: Contemporary research and future directions. *Child Development*, 77, 1129-1141.
- Quintana, S. M., & Vera, E. M. (1999). Mexican American children's ethnic identity, understanding of ethnic prejudice, and parental ethnic socialization. *Hispanic Journal of Behavioral Sciences*, 21, 387-404.
- Rabinowitz, J. L., Wittig, M. A., von Braun, M., Franke, R., & Zander-Music, L. (2005). Understanding the Relationship Between Egalitarianism and Affective Bias: Avenues to Reducing Prejudice Among Adolescents. *Journal of Social Issues*, 61, 525-545.
- Raudenbush, S. W., & Bryk, A. S. (2002). *Hierarchical linear models: Applications and data analysis methods*. Newbury Park: Sage.

- Raudenbush, S. W., Bryk, A. S., & Congdon, R. (2004). Hierarchical linear and nonlinear modeling (Version 6.06). Lincolnwood: Scientific Software International.
- Redfield, R., Linton, R., & Herskovits, M. (1936). Memorandum on the study of acculturation. *American Anthropologist*, 38, 149-152.
- Rodkin, P. C., Wilson, T., & Ahn, H.-J. (2007). Social integration between African American and European American children in majority Black, majority White, and multicultural elementary classrooms. In P. C. Rodkin & L. D. Hanish (Eds.), *Social network analysis and children's peer relationships. New Directions for Child and Adolescent Development* (Vol. 118, pp. 25-42). San Francisco: Jossey-Bass.
- Rothbart, M., & John, O. P. (1985). Social categorization and behavioral episodes: A cognitive analysis of the effects of intergroup contact. *Journal of Social Issues*, 41, 81-104.
- Rothermund, K., & Wentura, D. (2004). Underlying Processes in the Implicit Association Test: Dissociating Salience From Associations. *Journal of Experimental Psychology: General*, 133, 139-165.
- Rubin, K. H., Bukowski, W. M., & Parker, J. G. (2006). Peer interactions, relationships, and groups. In W. Damon & R. M. Lerner (Eds.), *Handbook of Child Psychology: Vol. 3. Social, emotional, and personality development* (6th ed., pp. 571-645). New York: Wiley.
- Rudmin, F. W. (2003). Critical history of the acculturation psychology of assimilation, separation, integration, and marginalization. *Review of General Psychology*, 7, 3-37.
- Rutland, A. (1999). The development of national prejudice, in-group favouritism and self-stereotypes in British children. *British Journal of Social Psychology*, 38, 55-70.
- Rutland, A., Cameron, L., Milne, A., & McGeorge, P. (2005). Social norms and self-presentation: Children's implicit and explicit intergroup attitudes. *Child Development*, 76, 451-466.
- Saguy, T., Tausch, N., Dovidio, J. F., & Pratto, F. (2009). The irony of harmony: Intergroup contact can produce false expectations for equality. *Psychological Science*, 20, 114-121.
- Scheepers, P., Gijsberts, M., & Coenders, M. (2002). Ethnic exclusionism in European countries. Public opposition to civil rights for legal immigrants as a response to perceived ethnic threat. *European Sociological Review*, 18, 17-34.

- Schneider, B. H., Dixon, K., & Udvari, S. (2007). Closeness and competition in the inter-ethnic and co-ethnic friendships of early adolescents in Toronto and Montreal. *Journal of Early Adolescence*, 27, 115-138.
- Schofield, J. W. (2006). Migration background, minority-group membership and academic achievement: Research from social, educational, and developmental psychology, *AKI Research Review* 5. Berlin: Programme on Intercultural Conflicts and Societal Integration (AKI), Social Science Research Center Berlin.
- Schofield, J. W., & Eurich-Fulcer, R. (2001). When and how school desegregation improves intergroup relations. In R. Brown & S. Gaertner (Eds.), *Blackwell handbook of social psychology: Intergroup processes* (pp. 475-494). Malden: Blackwell.
- Shelton, J. N. (2003). Interpersonal concerns in social encounters between majority and minority group members. *Group Processes & Intergroup Relations*, 6, 171-185.
- Shelton, J. N., Richeson, J. A., & Vorauer, J. D. (2006). Threatened identities and interethnic interactions. *European Review of Social Psychology*, 17, 321-358.
- Shrum, W., Cheek, N. H., & Hunter, S. M. (1988). Friendship in school: Gender and racial homophily. *Sociology of Education*, 61, 227-239.
- Sinclair, S., Dunn, E., & Lowery, B. S. (2005). The relationship between parental racial attitudes and children's implicit prejudice. *Journal of Experimental Social Psychology*, 41, 283-289.
- Singer, J. D., & Willet, J. B. (2003). *Applied longitudinal data analysis: Modelling change and event occurrence*. New York: Oxford University Press.
- Slavin, R. E., & Cooper, R. (1999). Improving intergroup relations: Lessons learned from cooperative learning programs. *Journal of Social Issues*, 55, 647-663.
- Smetana, J. G. (2006). Social domain theory: Consistencies and variations in children's moral and social judgments. In M. Killen & J. G. Smetana (Eds.), *Handbook of moral development* (pp. 119-153). Mahwah, NJ: Erlbaum.
- Smith, A., & Schneider, B. H. (2000). The inter-ethnic friendships of adolescent students: A Canadian study. *International Journal of Intercultural Relations*, 24, 247-258.
- Snijders, T. A. B., Steglich, C., & Schweinberger, M. (2007). Modeling the co-evolution of networks and behavior. In K. V. Montfort, H. Oud & A. Satorra (Eds.), *Longitudinal models in the behavioral and related sciences* (pp. 41-71). Mahwah, NJ: Erlbaum.
- Steffens, M. C. (2004). Is the Implicit Association Test immune to faking? *Experimental Psychology*, 51, 165-179.

- Steglich, C., Snijders, T. A. B., & West, P. (2006). Applying SIENA: An illustrative analysis of the coevolution of adolescents' friendship networks, taste in music, and alcohol consumption. *Methodology: European Journal of Research Methods for the Behavioral and Social Sciences*, 2, 48-56.
- Stephan, C. W., Renfro, L., & Stephan, W. G. (2004). The evaluation of multicultural education programs: techniques and a meta-analysis. In W. G. Stephan & W. P. Vogt (Eds.), *Education programs for improving intergroup relations: Theory, research and practice* (pp. 227-242). New York: Teachers College Press.
- Stephan, W. G., & Finlay, K. (1999). The role of empathy in improving intergroup relations. *Journal of Social Issues*, 55, 729-743.
- Stephan, W. G., & Stephan, C. W. (1985). Intergroup anxiety. *Journal of Social Issues*, 41, 157-175.
- Stephan, W. G., & Stephan, C. W. (2000). An integrated threat theory of prejudice. In S. Oskamp (Ed.), *Reducing prejudice and discrimination* (pp. 23-46). Mahwah, NJ, US: Lawrence Erlbaum.
- Strohmeier, D., & Spiel, C. (2003). Immigrant Children in Austria: Aggressive Behavior and Friendship Patterns in Multicultural School Classes. *Journal of Applied School Psychology*, 19, 99-116.
- Tajfel, H., & Turner, J. C. (1979). The social identity theory of intergroup behavior. In S. Worchel & W. G. Austin (Eds.), *The Psychology of intergroup relations* (pp. 33-47). Monterey, CA: Brooks/Cole.
- Tatum, B. D. (1997). *'Why are all the black kids sitting together in the cafeteria?'* New York, NY, US: Basic Books.
- Thomas, A. (1998). Scientific and practical aspects of cross-cultural cooperation and management in the context of European integration. *Studia Psychologica*, 40, 69-78.
- Tisak, M. S. (1995). Domains of social reasoning and beyond. In R. Vasta (Ed.), *Annals of child development: A research annual, Vol. 11, 1995*. (pp. 95-130). London, England: Jessica Kingsley Publishers.
- Titzmann, P. F., Silbereisen, R. K., & Schmitt-Rodermund, E. (2007). Friendship homophily among diaspora migrant adolescents in Germany and Israel. *European Psychologist*, 12, 181-195.
- Tropp, L. R. (2007). Perceived discrimination and contact: predicting interracial closeness among black and white Americans. *Social Psychology Quarterly*, 70, 70-81.

- Tropp, L. R., & Bianchi, R. A. (2006). Valuing Diversity and Interest in Intergroup Contact. *Journal of Social Issues, 62*, 533-551.
- Tropp, L. R., & Pettigrew, T. F. (2005a). Differential Relationships Between Intergroup Contact and Affective and Cognitive Dimensions of Prejudice. *Personality and Social Psychology Bulletin, 31*, 1145-1158.
- Tropp, L. R., & Pettigrew, T. F. (2005b). Relationships between intergroup contact and prejudice among minority and majority status groups. *Psychological Science, 16*, 951-957.
- Tropp, L. R., & Prenovost, M. A. (2008). The role of intergroup contact in predicting children's inter-ethnic attitudes: Evidence from meta-analytic and field studies. In S. Levy & M. Killen (Eds.), *Intergroup relations: An integrative developmental and social psychological perspective* (pp. 236-248). New York: Oxford University Press.
- Turiel, E. (1983). *The development of social knowledge: Morality and convention*. Cambridge, England: Cambridge University Press.
- Turiel, E. (1998). The development of morality. In N. Eisenberg & Damon (Eds.), *Handbook of child psychology* (Vol. 3, pp. 863-932). New York, NY: Wiley.
- Turiel, E., Killen, M., & Helwig, C. C. (1987). Morality: Its structure, functions, and vagaries. In J. Kagan & S. Lamb (Eds.), *The emergence of morality in young children* (pp. 155-242). Chicago: University of Chicago Press.
- Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Wetherell, M. S. (1987). *Rediscovering the social group: A self-categorization theory*. Cambridge, MA US: Basil Blackwell.
- Turner, R. N., Hewstone, M., & Voci, A. (2007). Reducing explicit and implicit outgroup prejudice via direct and extended contact: The mediating role of self-disclosure and intergroup anxiety. *Journal of Personality and Social Psychology, 93*, 369-388.
- Turner, R. N., Hewstone, M., Voci, A., & Vonofakou, C. (2008). A test of the extended intergroup contact hypothesis: The mediating role of intergroup anxiety, perceived ingroup and outgroup norms, and inclusion of the outgroup in the self. *Journal of Personality and Social Psychology, 95*, 843-860.
- Verkuyten, M. (2001). National identification and intergroup evaluations in Dutch children. *British Journal of Developmental Psychology, 19*, 559-571.
- Verkuyten, M. (2002). Ethnic attitudes among minority and majority children: The role of ethnic identification, peer group victimization and parents. *Social Development, 11*, 558-570.

- Verkuyten, M. (2007). Religious group identification and inter-religious relations: A study among Turkish-Dutch Muslims. *Group Processes & Intergroup Relations*, 10, 341-357.
- Verkuyten, M., Hagendoorn, L., & Masson, K. (1996). The ethnic hierarchy among majority and minority youth in the Netherlands. *Journal of Applied Social Psychology*, 26, 1104-1118.
- Verkuyten, M., & Masson, K. (1996). Culture and gender differences in the perception of friendship by adolescents. *International Journal of Psychology*, 31, 207-217.
- Verkuyten, M., & Steenhuis, A. (2005). Preadolescents' understanding and reasoning about asylum seeker peers and friendships. *Journal of Applied Developmental Psychology*, 26, 660-679.
- Verkuyten, M., & Yildiz, A. A. (2007). National (dis)identification and ethnic and religious identity: A study among Turkish-Dutch Muslims. *Personality and Social Psychology Bulletin*, 33, 1448-1462.
- Wagner, U., van Dick, R., Pettigrew, T. F., & Christ, O. (2003). Ethnic prejudice in East and West Germany: The explanatory power of intergroup contact. *Group Processes & Intergroup Relations*, 6, 22-36.
- Wasserman, S., & Faust, K. (1994). *Social network analysis: Methods and applications*. New York, NY: Cambridge University Press.
- Weller, S. (2007). 'Sticking with your Mates?' Children's Friendship Trajectories during the Transition from Primary to Secondary School. *Children and Society*, 21, 339-351.
- Wenzel, M., Mummendey, A., & Waldzus, S. (2007). Superordinate identities and intergroup conflict: The ingroup projection model. *European Review of Social Psychology*, 18, 331 - 372.
- West, S. G., Biesanz, J. C., & Kwok, O.-M. (2004). Within-subject and longitudinal experiments: Design and analysis issues. In C. Sansone, C. C. Morf & A. T. Panter (Eds.), *The Sage handbook of methods in social psychology*. (pp. 287-312). Thousand Oaks, CA: Sage Publications Inc.
- West, T. V., Shelton, J. N., & Trail, T. E. (2009). Relational anxiety in interracial interactions. *Psychological Science*, 20, 289-292.
- Williams, J. E., Best, D. L., & Boswell, D. A. (1975). The measurement of children's racial attitudes in the early school years. *Child Development*, 46, 494-500.
- Williams, R. M. (1947). *The reduction of intergroup tensions*. New York: Social Science Research Council.

- Wright, S. C., Aron, A., McLaughlin-Volpe, T., & Ropp, S. A. (1997). The extended contact effect: Knowledge of cross-group friendships and prejudice. *Journal of Personality and Social Psychology*, 73, 73-90.
- Wright, S. C., Aron, A., & Tropp, L. R. (2002). Including others (and groups) in the self: self-expansion and intergroup relations. In J. P. Forgas & K. D. Williams (Eds.), *The social self: cognitive, interpersonal, and intergroup perspectives* (pp. 343-363). Philadelphia, PA: Psychology Press.
- Wright, S. C., & Lubensky, M. E. (2009). The Struggle for Social Equality: Collective Action versus Prejudice Reduction. In S. Demoulin, J.-P. Leyens & J. F. Dovidio (Eds.), *Intergroup misunderstandings: Impact of divergent social realities*. New York, NY: Psychology Press.
- Wright, S. C., & Taylor, D. M. (2003). The social psychology of cultural diversity: social stereotyping, prejudice, and discrimination. In M. A. Hogg & J. Cooper (Eds.), *The sage handbook of social psychology* (pp. 432-457). London: Sage.
- Yee, M., & Brown, R. (1994). The development of gender differentiation in young children. *British Journal of Social Psychology*, 33, 183-196.
- Yu, P., & Berryman, D. L. (1996). The relationship among self-esteem, acculturation and recreation participation of recently arrived Chinese immigrant adolescents. *Journal of Leisure Research*, 28, 251-273.
- Zick, A., Pettigrew, T. F., & Wagner, U. (2008). Ethnic prejudice and discrimination in Europe. *Journal of Social Issues*, 64, 233-251.
- Zirkel, S. (2008). Creating more effective multiethnic schools. *Social Issues and Policy Review*, 2, 187-241.

APPENDIX

Measures used in original language (German)

Friendship

Instructions:

Auf der Liste vor Dir siehst du, dass jeder Junge/jedes Mädchen aus deiner Klasse eine Nummer hat.

Mit wem aus deiner Klasse bist du wie gut befreundet?

Überlege für jeden Jungen/Mädchen in deiner Klasse wie gut ihr befreundet seid. Wähle nicht dich selbst!

Scale: bester Freund

guter Freund

Freund, der Ok ist

Ok, aber nicht wirklich ein Freund

kenn ich nicht so gut

Outgroup Orientation

Instructions:

Kreuze an, was stimmt:

Items:

1. Ich spiele gerne mit Kindern, die aus einem anderen Land kommen als ich.
2. Ich verbringe viel Zeit mit Kindern, die aus einem anderen Land kommen als ich.
3. Ich mache viel mit Kindern, die aus einem anderen Land kommen als ich.
4. Ich finde es toll mit Kindern zusammen zu sein, die aus einem anderen Land kommen als ich.

Scale: ja, stimmt

stimmt eher

stimmt eher nicht

nein, stimmt nicht






Intergroup Attitudes

Instructions:






Was fühlst du gegenüber Deutschen und Türken?

Items:






1. Wie sehr magst du Deutsche/Türken? Deutsche/Türken mag ich...

				
Überhaupt nicht gern				Sehr gern
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>






2. Was fühlst du gegenüber Deutschen/Türken? Deutschen/Türken gegenüber fühle ich mich...

				
Sehr schlecht				Sehr gut
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. Wie nett sind Deutsche/Türken? Deutsche/Türken finde ich...

				
Überhaupt nicht nett				Sehr nett
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. Wie sehr vertraust du Deutschen/Türken? Deutschen/Türken vertraue ich...

				
Überhaupt nicht				Sehr stark
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Peer NormsInstructions:

Hier ist eine Gruppe von deutschen/türkischen Jungen/Mädchen. Stell dir vor, was sie darüber denken, mit deutschen/türkischen Jungen/Mädchen befreundet zu sein.

Wie viele von den deutschen/türkischen Jungen/Mädchen würden sagen:

Items:

1. Es ist eine gute Idee für deutsche/türkische Jungen/Mädchen und türkische/deutsche Jungen/Mädchen miteinander befreundet zu sein.
2. Ich bin gerne mit türkischen/deutschen Jungen/Mädchen befreundet.

Scale:

keine
manche
viele
alle

Perceptions of Contact ConditionsInstructions:

Denke jetzt an deine Schulklasse. Kreuze an, was stimmt

Items:

1. In dieser Klasse ist der Lehrer oder die Lehrerin fair zu allen Kindern, egal aus welchem Land sie kommen.
2. Alle Kinder in dieser Klasse werden gleich behandelt, egal aus welchem Land sie kommen.
3. In dieser Klasse arbeiten Kinder aus verschiedenen Ländern alle zusammen an den gleichen Dingen.
4. In dieser Klasse arbeiten Kinder aus verschiedenen Ländern gut zusammen bei Gruppenarbeiten.
5. In dieser Klasse rede ich mit Kindern aus anderen Ländern nur, wenn ich muss.
6. In dieser Klasse wollen Kinder aus verschiedenen Ländern einfach nicht gerne zusammen sein.
7. In dieser Klasse ermuntert der Lehrer oder die Lehrerin die Kinder, Freunde aus verschiedenen Ländern zu haben.
8. In dieser Klasse wird man ermuntert mit allen Kindern befreundet zu sein.

Scale:

ja, stimmt
stimmt eher
stimmt eher nicht
nein, stimmt nicht

School Class IdentificationInstructions:

Denke jetzt an deine Schulklasse

Items:

1. Wie sehr magst du es, dass du zu dieser Klasse gehörst?
2. Wie stolz bist du, dass du zu dieser Klasse gehörst?
3. Wie froh bist du, dass du zu dieser Klasse gehörst?
4. Wie gut fühlst du dich, dass du zu dieser Klasse gehörst?

Scale:

gar nicht
ein bisschen
mittel
ziemlich
sehr

EmpathyInstructions:

Kreuze die Antwort an, die dir am besten passt.

Items:

1. Es macht mich glücklich, wenn ich sehe, wie ein anderes Kind einen Preis gewinnt.
2. Wenn ich ein Kind sehe, das weint, ist mir nach Weinen zumute.
3. Ich rege mich auf, wenn ich sehe, wie einem Kind wehgetan wird.
4. Manchmal weine ich, wenn ich eine traurige Fernsehsendung sehe.
5. Es macht mich traurig, ein Kind zu sehen, das niemanden zum Spielen findet.
6. Ich rege mich auf, wenn ich sehe, wie ein Kind vom Lehrer/von der Lehrerin bestraft wird.
7. Ich fühle mich schlecht, wenn einem Hund oder einer Katze wehgetan wird.
8. Ich rege mich auf, wenn ich sehe, wie ein Kind geärgert wird.

Scale:

überhaupt nicht

ein ganz kleines bisschen

ein bisschen

ziemlich

sehr

SUMMARY

This thesis dealt with the question how preadolescents entering ethnically heterogeneous secondary schools make decisions about peer-group relationships. This question seemed particularly relevant against the backdrop of increasingly ethnically diverse school environments and findings from the intergroup contact literature that cross-ethnic friendships are one of the most potent means to reduce prejudice and discrimination (Pettigrew & Tropp, 2006; Tropp & Prenovost, 2008). Yet, previous research (see McGlothlin et al., 2008 for a review) has also shown that cross-ethnic friendships are rare to begin with (e.g., Kao & Joyner, 2004), less stable than same-ethnic friendships (e.g., Schneider et al., 2007) and decline further with age (e.g., Aboud et al., 2003). Thus, in order to promote cross-ethnic friendships it is important to understand the underlying reasons for this preference for same-ethnic friends (PSF).

The overarching question, how cross-ethnic friendships form, was dealt with by examining: (1) the trajectory of friendship choices in newly formed school classes over the course of one school year; (2) the role of several key predictors of PSF, namely outgroup orientation, intergroup attitudes, peer norms, contact conditions, and shared identity; (3) the role of ethnic group membership in determining differences in friendship choices and in predicting PSF; (4) the stability of same- and cross-ethnic friendships; and (5) the role of empathy and peer norms in predicting the stability of cross-ethnic friendships.

The following predictions were made: Preadolescents would show PSF at the beginning of the year in the absence of other individuating information about their classmates. Regarding the trajectory of PSF over time two alternative predictions were made. Either PSF should increase as cross-ethnic friendships have been shown to decline with age and to be less stable relative to same-ethnic friendships. Alternatively, PSF could decrease as preadolescents might use ethnicity as a criterion for friendship decisions in the beginning of the year but might use other criteria (e.g., activity preferences) over time as they get to know their classmates better. Concerning predictors of PSF, it was predicted that preadolescents high in outgroup orientation, peer norms supportive of cross-ethnic friendships, positive intergroup attitudes, perceived contact conditions conducive to inter-ethnic contact, and school class identification would show low PSF. With regard to the role of ethnic group membership, no predictions were made about differences in PSF, but it was predicted that outgroup orientation would be more predictive of German than Turkish children's PSF. Finally, it was predicted that since it takes time to build up a school class identity the effect of school class identity on

reducing PSF would increase over time. Regarding friendship stability, it was predicted that cross-ethnic friendships would be less stable than same-ethnic friendships and that preadolescents high in empathy and perceiving peer norms to be supportive of cross-ethnic friendships would be more likely to maintain their cross-ethnic friendships.

These predictions were tested using a longitudinal questionnaire design. Data were collected over three measurement points (beginning, middle, and end of the school year) from altogether 297 preadolescents. Participants were sampled from seven ethnically heterogeneous secondary schools in a mid-sized city in North-Western Germany. Of these participants, 215 children participated in all waves (attrition: 20%). The analyses of PSF concentrated on 106 German majority and 45 Turkish minority group preadolescents (75 boys, 76 girls; aged 9-12). For the analysis of friendship stability, only data from Time 2 and Time 3 were used, resulting in a sample of 86 German and 39 Turkish preadolescents.

The main findings were: First, Turkish preadolescents showed marked PSF at the beginning of the year while German preadolescents did not. Second, the trajectories of PSF were different for German and Turkish preadolescents. While German preadolescents showed a curvilinear trend, Turkish preadolescents showed a linear downward trend. Importantly, both groups did not show significant PSF at the end of the year anymore. Further individual variation in PSF was explained by the predictor variables. Specifically, outgroup orientation, intergroup attitudes, peer norms, and perceived contact conditions helped explain observed variability among German preadolescents. Among Turkish preadolescents, intergroup attitudes, peer norms, and the time-varying effect of class identification explained variance in PSF. The analysis of friendship stability revealed that, as predicted, cross-ethnic friendships were less stable than same-ethnic friendships. It was further shown that for German but not Turkish preadolescents, empathy and positive peer norms about cross-ethnic friendships had a facilitating role in maintaining cross-ethnic friendships over a five-month-period.

In sum, the findings of the present study implied a general trend towards less preference for same-ethnic friends over time while the predictor variables explained significant individual variation in PSF. There were, however, differences across status groups regarding some key predictors of PSF, namely desire for and openness to outgroup contact and shared identity. While the findings regarding the trajectory of friendship choices were overall very positive, the findings on the stability of cross-ethnic friendships indicated that the mere existence of cross-ethnic friendships at a particular point in time is not an accurate gauge of the ethnic tolerance or integration in a school class. Nonetheless, this study went some way

in explaining why cross-ethnic friendships are less stable by identifying two individual factors that contribute to their stability, namely empathy and peer norms.

To conclude, the present research provides an important contribution to the existing literature on cross-ethnic peer relations and intergroup contact by furthering our understanding under which conditions opportunity for contact may lead to positive and lasting intergroup relations in increasingly diverse school contexts. The results offer practical implications for educators on how to promote cross-ethnic friendships in the school setting.

ZUSAMMENFASSUNG

Diese Arbeit befasste sich mit der Frage wie vorpubertäre Kinder, die in ethnisch heterogene Sekundarschulen eintreten, Entscheidungen über Freundschaftsbeziehungen treffen. Diese Frage erschien besonders relevant vor dem Hintergrund, dass Schulumgebungen zunehmend ethnisch diverser werden und Ergebnissen aus der Literatur zum Intergruppen-Kontakt, die zeigen, dass inter-ethnische Freundschaften eine der wirksamsten Mittel zur Reduzierung von Vorurteilen sind (Pettigrew & Tropp, 2006; Tropp & Prenovost, 2008). Allerdings hat frühere Forschung auch gezeigt (siehe zusammenfassend McGlothlin et al., 2008), dass inter-ethnische Freundschaften von Beginn an selten (z. B. Kao & Joyner, 2004), weniger stabil als intra-ethnische Freundschaften sind (z. B. Schneider et al., 2007) und mit dem Alter weiter abnehmen (z. B. Aboud et al., 2003). Um inter-ethnische Freundschaften zu fördern, ist es daher wichtig, die zugrundeliegenden Ursachen für diese Präferenz für intra-ethnische Freunde (PAF) zu verstehen.

Die übergreifende Frage, wie inter-ethnische Freundschaften entstehen, wurde behandelt durch die Untersuchung von: (1) dem Verlauf von Freundschaftswahlen in neugeformten Klassenverbänden über ein Schuljahr hinweg; (2) der Rolle von verschiedenen wichtigen Prädiktoren von PAF, nämlich Fremdgruppenorientierung, Intergruppeneinstellungen, Peer Normen, Kontaktbedingungen und gemeinsamer Identität; (3) der Rolle von ethnischer Zugehörigkeit für Unterschiede in Freundschaftswahlen und in der Vorhersage von PAF; (4) der Stabilität von intra- und inter-ethnischen Freundschaften; und (5) der Rolle von Empathie und Peer Normen zur Vorhersage der Stabilität von inter-ethnischen Freundschaften.

Die folgenden Vorhersagen wurde gemacht: Kinder würden PAF am Anfang des Schuljahres zeigen, wenn sie noch keine anderen individuellen Informationen über ihre Klassenkameraden haben. Zwei alternative Vorhersagen wurden bezüglich des Verlaufs von PAF über die Zeit gemacht. Entweder sollte PAF ansteigen, da gezeigt wurde, dass inter-ethnische Freundschaften mit dem Alter abnehmen und weniger stabil als intra-ethnische Freundschaften sind. Alternativ könnte PAF abnehmen, da Kinder ethnische Zugehörigkeit am Anfang des Schuljahres als Kriterium für Freundschaftsentscheidungen, mit der Zeit aber andere Kriterien (z. B. Präferenzen für bestimmte Aktivitäten) verwenden könnten, sobald sie ihre Klassenkameraden besser kennengelernt haben. Bezüglich der Prädiktoren von PAF wurde vorhergesagt, dass Kinder hoch in Fremdgruppenorientierung, Peer Normen, die inter-ethnische Freundschaften unterstützen, positiven Intergruppeneinstellungen,

wahrgenommenen Kontaktbedingungen, die Intergruppen-Kontakt begünstigen, und Identifikation mit der Schulklasse, eine niedrige PAF zeigen würden. Bezüglich der Rolle von ethnischer Gruppenzugehörigkeit wurden keine Vorhersagen über Unterschiede in der PAF gemacht, aber es wurde angenommen, dass Fremdgruppenorientierung die PAF von deutschen Kindern besser vorhersagen würde als von türkischen Kindern. Schließlich wurde vorhergesagt, dass, da es Zeit braucht bis sich eine Klassenidentität bildet, der die PAF reduzierende Effekt von Klassenidentität über die Zeit ansteigen würde. Bezogen auf die Stabilität von Freundschaften, wurde vorhergesagt, dass inter-ethnische Freundschaften weniger stabil als intra-ethnische Freundschaften sind, und dass Kinder hoch in Empathie und wahrgenommenen Peer Normen, die inter-ethnische Freundschaften unterstützen, mit größerer Wahrscheinlichkeit ihre inter-ethnischen Freundschaften beibehalten würden.

Diese Vorhersagen wurden mittels eines längsschnittlichen Fragebogen-Designs getestet. Die Daten wurden über drei Messzeitpunkte (zu Beginn, Mitte und Ende des Schuljahres) von insgesamt 297 Kindern erhoben. Die Untersuchungsteilnehmer rekrutierten sich aus sieben ethnisch heterogenen Sekundarschulen in einer mittelgroßen Stadt in Nordwest-Deutschland. Von diesen Untersuchungsteilnehmern haben 215 Kinder an allen Befragungen teilgenommen (Schrumpfung: 20 %). Die Analysen zu PAF konzentrierten sich auf 106 deutsche Mehrheits- und 45 türkische Minderheitsgruppen-Kinder (75 Jungen, 76 Mädchen, Alter: 9-12). Für die Analyse der Stabilität von Freundschaften wurden nur Daten des zweiten und dritten Messzeitpunktes verwendet, was in einer Stichprobe von 86 deutschen und 39 türkischen Kindern resultierte.

Die Hauptergebnisse waren: Erstens, türkische Kinder zeigten eine deutliche PAF am Anfang des Schuljahres, während deutsche Kinder dies nicht taten. Zweitens, die Verläufe von PAF unterschieden sich zwischen deutschen und türkischen Kindern. Während sich bei deutschen Kindern ein kurvilinearer Trend zeigte, zeigte sich bei türkischen Kindern ein absteigend linearer Trend. Ein wesentliches Ergebnis ist, dass beide Gruppen am Ende des Schuljahres keine signifikante PAF mehr zeigten. Weitere interindividuelle Variation in der PAF wurde durch die Prädiktoren aufgeklärt. Speziell zeigte sich, dass Fremdgruppenorientierung, Intergruppeneinstellungen, Peer Normen und wahrgenommene Kontaktbedingungen halfen, die beobachtete Variabilität von PAF bei deutschen Kindern aufzuklären. Bei türkischen Kindern erklärten Intergruppeneinstellungen, Peer Normen und der zeitveränderliche Effekt von Klassenidentifikation Varianz in PAF auf. Die Analyse der Stabilität von Freundschaften zeigte, dass, wie vorhergesagt, inter-ethnische Freundschaften weniger stabil als intra-ethnische Freundschaften waren. Weiter wurde gezeigt, dass für

deutsche aber nicht für türkische Kinder Empathie und positive Peer Normen über inter-ethnische Freundschaften eine unterstützende Rolle hinsichtlich der Beibehaltung von inter-ethnischen Freundschaften über einen Zeitraum von fünf Monaten hatten.

Zusammenfassend implizierten die Ergebnisse der vorliegenden Studie einen generellen Trend zu weniger Präferenz für intra-ethnische Freunde über die Zeit, während die Prädiktorvariablen signifikante individuelle Variation in der PAF aufklärten. Es gab jedoch Unterschiede zwischen Statusgruppen hinsichtlich der Rolle einiger wichtiger Prädiktoren von PAF, nämlich Bereitschaft und Offenheit gegenüber Kontakt zur Fremdgruppe und gemeinsamer Identität. Während die Ergebnisse bezüglich des Verlaufs von Freundschaftswahlen insgesamt sehr positiv waren, wiesen die Ergebnisse zur Stabilität von inter-ethnischen Freundschaft darauf hin, dass das bloße Vorhandensein von inter-ethnischen Freundschaften zu einem bestimmten Zeitpunkt kein guter Indikator für die ethnische Toleranz oder Integration in einer Schulklasse ist. Nichtsdestotrotz hat diese Studie einiges dazu beigetragen zu erklären, warum inter-ethnische Freundschaften weniger stabil sind, indem sie zwei individuelle Faktoren identifizieren konnte, die zu ihrer Stabilität beitragen, nämlich Empathie und Peer Normen.

Abschließend leistet die vorliegende Forschung dadurch einen wichtigen Beitrag zur existierenden Literatur zu inter-ethnischen Freundschaftsbeziehungen und Intergruppen-Kontakt, indem sie unser Verständnis darüber erweitert, unter welchen Bedingungen Kontaktmöglichkeiten zu positiven und dauerhaften Intergruppenbeziehungen in verstärkt diversen Schulumgebungen führen. Die Ergebnisse weisen praktische Implikationen für Pädagogen auf, wie inter-ethnische Freundschaften in der Schule gefördert werden können.

CURRICULUM VITAE

Name: Philipp Christoph Jugert
Geburtsdatum: 21.10.1978
Geburtsort: Bremen
Familienstand: unverheiratet, eine Tochter

Schullaufbahn:

1985-1989 Grundschule „An der Gede“, Bremen
1989-1998 Kippenberg-Gymnasium, Bremen
1998 Abitur

Zivildienst:

1998-1999 Altenpflegeheim Johanniterhaus, Bremen

Hochschulstudium:

1999-2004 Ernst-Moritz-Arndt-Universität Greifswald, Diplom in Psychologie
2005-2006 University of Auckland, Master of Arts in Psychologie
2006-2009 Promotions-Stipendiat im Internationalen Graduiertenkolleg „Konflikt und Kooperation zwischen sozialen Gruppen“ an der Friedrich-Schiller-Universität Jena

EHRENWÖRTLICHE ERKLÄRUNG

Hiermit erkläre ich, dass mir die geltende Promotionsordnung der Fakultät für Sozial- und Verhaltenswissenschaften der Friedrich-Schiller-Universität Jena bekannt ist.

Ferner erkläre ich, dass ich die vorliegende Arbeit selbst und ohne unzulässige Hilfe Dritter angefertigt habe. Alle von mir benutzten Hilfsmittel, persönliche Mitteilungen und Quellen sind in der Arbeit angegeben. Insbesondere habe ich hierfür nicht die Hilfe eines Promotionsberaters in Anspruch genommen und Dritte haben weder unmittelbar noch mittelbar geldwerte Leistungen von mir für Arbeiten erhalten, die im Zusammenhang mit dem Inhalt der vorgelegten Dissertation stehen.

Die Arbeit wurde weder im In- noch Ausland in gleicher oder ähnlicher Form einer anderen Prüfungsbehörde vorgelegt. Weder früher noch gegenwärtig habe ich an einer anderen Hochschule eine Dissertation eingereicht.

Ich versichere, dass ich nach bestem Wissen die reine Wahrheit gesagt und nichts verschwiegen habe.

Ort, Datum

Unterschrift